DCR-DVD406E/DVD408/DVD408E/DVD506E/DVD508 DVD508E/DVD808/DVD808E/DVD908/DVD908E

RMT-835

SERVICE MANUAL

LEVEL 2

Ver 1.1 2007.04
Revision History

Revised-1

How to use Acrobat Reader

Photo: DCR-DVD408

US Model
Canadian Model
AEP Model
UK Model
North European Model
East European Model
E Model
Australian Model
Hong Kong Model
Chinese Model
Korea Model
Tourist Model
Brazilian Model
Japanese Model

Link

SPECIFICATIONS	DISASSEMBLY	SCHEMATIC DIAGRAMS
MODEL INFORMATION TABLE	BLOCK DIAGRAMS	PRINTED WIRING BOARDS
SERVICE NOTE	FRAME SCHEMATIC DIAGRAMS	REPAIR PARTS LIST

- Precaution on Replacing the VC-478 Board

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

DVD R/RW RW DVD+ReWritable RW DVD+R DL

DIGITAL VIDEO CAMERA RECORDER

SONY®

DCR-DVD406E/DVD408/DVD408E/DVD506E/DVD508/
DVD508E/DVD808/DVD808E/DVD908/DVD908E_L2
9-852-179-32

Sony EMCS Co.

2007D0200-1
© 2007.04
Published by Kohda TEC

These specifications are extracted from instruction manual of
DCR-DVD406E/DVD408E/DVD506E/DVD508E/DVD808E/DVD908E

ENGLISH | JAPANESE

Self Diagnosis Supported model

HANDYCAM

MEMORY STICK ™

InfoLITHIUM ™ H SERIES

SPECIFICATIONS

System

Video compression format
MPEG2/JPEG (Still images)

Audio compression format
Dolby Digital 2/5.1ch
Dolby Digital 5.1 Creator

Video signal
PAL color, CCIR standards

Usable discs
8 cm DVD-RW/DVD+RW/DVD-R/DVD+R DL

Recording format
Movie
DVD-RW: DVD-VIDEO (VIDEO mode),
DVD-Video Recording (VR mode)
DVD+RW: DVD+RW Video
DVD-R/DVD+R DL: DVD-VIDEO

Still image
Exif Ver.2.2*1

Recording time
DVD-RW/DVD+RW/DVD-R
9M (HQ):Approx. 20 min
6M (SP): Approx. 30 min
3M (LP): Approx. 60 min

DVD+R DL:
9M (HQ):Approx. 35 min
6M (SP): Approx. 55 min
3M (LP): Approx. 110 min

Viewfinder
Electric viewfinder (color)

Image device (ClearVid CMOS Sensor)
DCR-DVD506E/DVD508E/DVD908E
CMOS: 6.3 mm (1/2.9 type)
Recording pixels (still, 4:3):
Max. 6.1 mega (2 848 × 2 136) pixels*2
Gross: Approx. 3 200 000 pixels
Effective (movie, 16:9): 2 280 000 pixels
Effective (movie, 4:3): 1 710 000 pixels
Effective (still, 16:9): 2 280 000 pixels
Effective (still, 4:3): 3 040 000 pixels

DCR-DVD406E/DVD408E/DVD808E
CMOS: 5.9 mm (1/3 type)
Recording pixels (still, 4:3):
Max. 4.0 mega (2 304 × 1 728) pixels*2
Gross: Approx. 2 100 000 pixels
Effective (movie, 16:9): 1 430 000 pixels
Effective (movie, 4:3): 1 080 000 pixels
Effective (still, 16:9): 1 490 000 pixels
Effective (still, 4:3): 1 990 000 pixels

Lens
Carl Zeiss Vario-Sonnar T*
10 × (Optical), 20 ×, 80 ×*3 (Digital)
Filter diameter: 37 mm (1 1/2 in.)

Focal length
DCR-DVD506E/DVD508E/DVD908E
F1.8 - 2.9
f=5.4 - 54 mm (7/32 - 2 1/4 in.)
When converted to a 35 mm still camera
For movies:
40 - 400 mm (1 5/8 - 15 3/4 in.) (16:9)
49 - 490 mm (1 15/16 - 19 3/8 in.) (4:3)
For still images:
37 - 370 mm (1 1/2 - 14 5/8 in.) (4:3)
40 - 400 mm (1 5/8 - 15 3/4 in.) (16:9)

DCR-DVD406E/DVD408E/DVD808E
F1.8 - 2.9
f=5.1 - 51 mm (7/32 - 2 1/8 in.)
When converted to a 35 mm still camera
For movies*4 :
41.3 - 485 mm (1 11/16 - 19 1/8 in.) (16:9)
50.5 - 594 mm (2 - 23 1/2 in.) (4:3)
For still images:
37 - 370 mm (1 1/2 - 14 5/8 in.) (4:3)
40.4 - 404 mm (1 5/8 - 16 in.) (16:9)

Color temperature
[AUTO], [ONE PUSH],
[INDOOR] (3 200 K),
[OUTDOOR] (5 800 K)

Minimum illumination
1.5 lx (lux) (AUTO SLW SHUTTR ON, Shutter speed 1/25 sec)
0 lx (lux) (during NightShot function)

*1 "Exif" is a file format for still images, established by the JEITA (Japan Electronics and Information Technology Industries Association). Files in this format can have additional information such as your camcorder's setting information at the time of recording.

*2 The unique pixel array of Sony's ClearVid CMOS Sensor and image processing system (new Enhanced Imaging Processor) allows still image resolution equivalent to the sizes described.

*3 DCR-DVD406E/DVD408E/DVD808E

*4 The focal length figures are actual figures resulting from wide angle pixel readout.

• Manufactured under license from Dolby Laboratories.

Input/Output connectors

Audio/Video output
10-pin connector
Video signal: 1 Vp-p, 75 Ω (ohms)
Luminance signal: 1 Vp-p, 75 Ω (ohms)
Chrominance signal: 0.3 Vp-p, 75 Ω (ohms)
Audio signal: 327 mV (at load impedance 47 kΩ (kilohms)), Output impedance with less than 2.2 kΩ (kilohms)

USB jack
mini-B
(DCR-DVD406E/DVD506E: output only)

REMOTE jack
Stereo mini-minijack (∅ 2.5 mm)

LCD screen

Image
6.9 cm (2.7 type, aspect ratio 16:9)

Total dot number
211 200 (960 × 220)

General

Power requirements
DC 6.8 V/7.2 V (battery pack)
DC 8.4 V (AC Adaptor)

Average power consumption
DCR-DVD506E/DVD508E/DVD908E
During camera recording using the viewfinder with normal brightness:
4.4 W
During camera recording using the LCD with normal brightness:
4.6 W

DCR-DVD406E/DVD408E/DVD808E
During camera recording using the viewfinder with normal brightness:
3.8 W
During camera recording using theLCD with normal brightness:
4.0 W

Operating temperature
0 °C to +40 °C (32 °F to 104 °F)

Storage temperature
-20 °C to +60 °C (-4 °F to +140 °F)

Dimensions (approx.)
70 × 87 × 142 mm
(2 7/8 × 3 1/2 × 5 5/8 in.) (w/h/d)
including the projecting parts
70 × 87 × 145 mm
(2 7/8 × 3 1/2 × 5 5/8 in.) (w/h/d)
including the projecting parts, the NPFH60 rechargeable battery pack attached

Mass (approx.)
DCR-DVD506E/DVD508E/DVD908E
510 g (1 lb 1 oz) main unit only
590 g (1 lb 4 oz) including the NPFH60 rechargeable battery pack and a disc

DCR-DVD406E/DVD408E/DVD808E
490 g (1 lb 1 oz) main unit only
570 g (1 lb 4 oz) including the NPFH60 rechargeable battery pack and a disc

Supplied accessories
AC Adaptor (1)
Mains lead (1)
A/V connecting cable (1)
USB cable (1)
Wireless Remote Commander (1)
Rechargeable battery pack NP-FH60 (1)
CD-ROM "Handycam Application Software" (1)
Operating Guide (This manual) (1)

AC Adaptor AC-L200/L200B

Power requirements
AC 100 - 240 V, 50/60 Hz

Current consumption
0.35 - 0.18 A

Power consumption
18 W

Output voltage
DC 8.4 V*

Operating temperature
0 °C to +40 °C (32 °F to 104 °F)

Storage temperature
-20 °C to +60 °C (-4 °F to +140 °F)

Dimensions (approx.)
48 × 29 × 81 mm (1 15/16 × 1 3/16 × 3 1/4 in.)
(w/h/d) excluding the projecting parts

Mass (approx.)
170 g (6 oz) excluding the mains lead

* See the label on the AC Adaptor for other specifications.

Rechargeable battery pack NP-FH60

Maximum output voltage
DC 8.4 V

Output voltage
DC 7.2 V

Capacity
7.2 Wh (1 000 mAh)

Dimensions (approx.)
31.8 × 33.3 × 45.0 mm
(1 5/16 × 1 5/16 × 1 13/16 in.) (w/h/d)

Mass (approx.)
80 g (2.9 oz)

Operating temperature
0 °C to +40 °C (32 °F to 104 °F)

Type
Lithium ion

Design and specifications are subject to change without notice.

These specifications are extracted from instruction manual of
DCR-DVD408/DVD508/DVD808/DVD908

ENGLISH | JAPANESE

Self Diagnosis Supported model

HANDYCAM

MEMORY STICK ™

InfoLITHIUM ™ H SERIES

SPECIFICATIONS

System

Video compression format
MPEG2/JPEG (Still images)

Audio compression format
Dolby Digital 2/5.1ch
Dolby Digital 5.1 Creator

Video signal
NTSC color, EIA standards

Usable discs
8 cm DVD-RW/DVD+RW/DVD-R/DVD+R DL

Recording format
Movie
DVD-RW: DVD-VIDEO (VIDEO mode),
DVD-Video Recording (VR mode)
DVD+RW: DVD+RW Video
DVD-R/DVD+R DL: DVD-VIDEO

Still image
Exif Ver.2.2*1

Recording time
DVD-RW/DVD+RW/DVD-R
9M (HQ): Approx. 20 min
6M (SP): Approx. 30 min
3M (LP): Approx. 60 min

DVD+R DL:
9M (HQ): Approx. 35 min
6M (SP): Approx. 55 min
3M (LP): Approx. 110 min

Viewfinder
Electric viewfinder (color)

Image device (ClearVid CMOS Sensor)
DCR-DVD508/DVD908
CMOS: 6.3 mm (1/2.9 type)
Recording pixels (still, 4:3):
Max. 6.1 mega (2 848 × 2 136) pixels*2
Gross: Approx. 3 200 000 pixels
Effective (movie, 16:9): 2 280 000 pixels
Effective (movie, 4:3): 1 710 000 pixels
Effective (still, 16:9): 2 280 000 pixels
Effective (still, 4:3): 3 040 000 pixels

DCR-DVD408/DVD808
CMOS: 5.9 mm (1/3 type)
Recording pixels (still, 4:3):
Max. 4.0 mega (2 304 × 1 728) pixels*2
Gross: Approx. 2 100 000 pixels
Effective (movie, 16:9): 1 430 000 pixels
Effective (movie, 4:3): 1 080 000 pixels
Effective (still, 16:9): 1 490 000 pixels
Effective (still, 4:3): 1 990 000 pixels

Lens
Carl Zeiss Vario-Sonnar T*
10 × (Optical), 20 ×, 80 × *3 (Digital)
Filter diameter: 37 mm (1 1/2 in.)

Focal length
DCR-DVD508/DVD908
F1.8 - 2.9
f=5.4 - 54 mm (7/32 - 2 1/4 in.)
When converted to a 35 mm still camera
For movies:
40 - 400 mm (1 5/8 - 15 3/4 in.) (16:9)
49 - 490 mm (1 15/16 - 19 3/8 in.) (4:3)
For still images:
37 - 370 mm (1 1/2 - 14 5/8 in.) (4:3)
40 - 400 mm (1 5/8 - 15 3/4 in.) (16:9)

DCR-DVD408/DVD808
F1.8 - 2.9
f=5.1 - 51 mm (7/32 - 2 1/8 in.)
When converted to a 35 mm still camera
For movies *4 :
41.3 - 485 mm (1 11/16 - 19 1/8 in.) (16:9)
50.5 - 594 mm (2 - 23 1/2 in.) (4:3)
For still images:
37 - 370 mm (1 1/2 - 14 5/8 in.) (4:3)
40.4 - 404 mm (1 5/ in.) (16:9)

Color temperature
[AUTO], [ONE PUSH],
[INDOOR] (3 200 K),
[OUTDOOR] (5 800 K)

Minimum illumination
1.5 lx (lux) (AUTO SLW SHUTTR ON,
Shutter speed 1/30 second)
0 lx (lux) (during NightShot function)

*1 "Exif" is a file format for still images,established by the JEITA (Japan Electronics and Information Technology Industries Association). Files in this format can have additional information such as your camcorderÅfs setting information at the time of recording.

*2 The unique pixel array of Sony´s ClearVid CMOS Sensor and image processing system (new Enhanced Imaging Processor) allows still image resolution equivalent to the sizes described.

*3 DCR-DVD408/DVD808

*4 The focal length figures are actual figures resulting from wide angle pixel readout.

• Manufactured under license from Dolby Laboratories.

Input/Output connectors

Audio/Video output
10-pin connector
Video signal: 1 Vp-p, 75 Ω (ohms)
Luminance signal: 1 Vp-p, 75 Ω (ohms)
Chrominance signal: 0.286 Vp-p, 75 Ω (ohms)
Audio signal: 327 mV (at load impedance 47 kΩ (kilohms)),
Output impedance with less than 2.2 kΩ (kilohms)

USB jack
mini-B

REMOTE jack
Stereo mini-minijack (Ø 2.5 mm)

LCD screen

Image
6.9 cm (2.7 type, aspect ratio 16:9)
Total dot number
211 200 (960 × 220)

General

Power requirements
DC 6.8 V/7.2 V (battery pack)
DC 8.4 V (AC Adaptor)

Average power consumption
DCR-DVD508/DVD908
During camera recording using the viewfinder with normal brightness:
4.5 W
During camera recording using the LCD with normal brightness:
4.7 W

DCR-DVD408/DVD808
During camera recording using the viewfinder with normal brightness:
4.0 W
During camera recording using theLCD with normal brightness:
4.2 W

Operating temperature
0 °C to +40 °C (32 °F to 104 °F)

Storage temperature
-20 °C to +60 °C (-4 °F to +140 °F)

Dimensions (approx.)
70 × 87 × 142 mm
(2 7/8 × 3 1/2 × 5 5/8 in.) (w/h/d)
including the projecting parts
70 × 87 × 145 mm
(2 7/8 × 3 1/2 × 5 5/8 in.) (w/h/d)
including the projecting parts, the NPFH60 rechargeable battery pack attached

Mass (approx.)
DCR-DVD508/DVD908
510 g (1 lb 1 oz) main unit only
590 g (1 lb 4 oz) including the NPFH60 rechargeable battery pack and a disc

DCR-DVD408/DVD808
490 g (1 lb 1 oz) main unit only
570 g (1 lb 4 oz) including the NPFH60 rechargeable battery pack and a disc

Supplied accessories
AC Adaptor (1)
Power code (1)
A/V connecting cable (1)
USB cable (1)
Wireless Remote Commander (1)
Rechargeable battery pack NP-FH60 (1)
CD-ROM "Handycam Application Software" (1)
Operating Guide (This manual) (1)

AC Adaptor AC-L200/L200B

Power requirements
AC 100 - 240 V, 50/60 Hz

Current consumption
0.35 - 0.18 A

Power consumption
18 W

Output voltage
DC 8.4 V*

Operating temperature
0 °C to +40 °C (32 °F to 104 °F)

Storage temperature
-20 °C to +60 °C (-4 °F to +140 °F)

Dimensions (approx.)
48 × 29 × 81 mm
(1 15/16 × 1 3/16 × 3 1/4 in.) (w/h/d)
excluding the projecting parts

Mass (approx.)
170 g (6 oz) excluding the power cord

* See the label on the AC Adaptor for other specifications.

Rechargeable battery pack NP-FH60

Maximum output voltage
DC 8.4 V

Output voltage
DC 7.2 V

Capacity
7.2 Wh (1 000 mAh)

Dimensions (approx.)
31.8 × 33.3 × 45.0 mm
(1 5/16 × 1 5/16 × 1 13/16 in.) (w/h/d)

Mass (approx.)
80 g (2.9 oz)

Operating temperature
0 °C to +40 °C (32 °F to 104 °F)

Type
Lithium ion

Design and specifications are subject to change without notice.

自己診断搭載機種

概略仕様

システム

映像圧縮方式
MPEG2/JPEG(静止画)

音声圧縮方式
Dolby Digital2/5.1ch
ドルビーデジタル5.1クリエーター搭載

映像信号
NTSCカラー、EIA標準方式

使用可能ディスク
8cmのDVD-RW/DVD+RW/DVD-R/DVD+R DL

記録フォーマット
動画
DVD-RW:DVD-VIDEO(VIDEOモード)
DVD-Video Recording(VRモード)
DVD+RW:DVD+RW Video
DVD-R/DVD+R DL:DVD-VIDEO

静止画
Exif Ver.2.2*

録画時間
DVD-RW/DVD+RW/DVD-R:
9M(HQ): 約20分
6M(SP): 約30分
3M(LP): 約60分

DVD+R DL:
9M(HQ): 約35分
6M(SP): 約55分
3M(LP): 約110分

ファインダー
電子ファインダー:カラー

撮像素子
6.3mm(1/2.9型)CMOSセンサー
記録画像数:静止画時最大610万画素相当**
(2 848×2 136)(4:3時)
総画素数:約320万画素
動画時有効画素数(16:9モード):約228万画素
動画時有効画素数(4:3モード):約171万画素
静止画時有効画素数(16:9モード):約228万画素
静止画時有効画素数(4:3モード):約304万画素

ズームレンズ
カールツァイス バリオゾナーT*
10倍(光学)、20倍(デジタル)
フィルター径37mm
F1.8～2.9
f=5.4～54mm
35mmカメラ換算では
動画撮影時:
40～400mm(16:9モード)
49～490mm(4:3モード)
静止画撮影時:
37～370mm(4:3モード)
40～400mm(16:9モード)

色温度切り換え
[オート]、[ワンプッシュ]、
[屋内] (3 200K)、
[屋外] (5 800K)

最低被写体照度
3lx(ルクス) ([オートスロシャッタ] [入]、
シャッタースピード1/30秒)
0 lx(ルクス)(NightShot時)

* (社)電子情報技術産業協会(JEITA)にて制定された、撮影情報などの付帯情報を追加することができる静止画用のファイルフォーマット。

** ソニー独自のクリアビッドCMOSセンサーの画素配列と画像処理システム新エンハンスドイメージングプロセッサーにより、静止画は表記の記録サイズを実現しています。

入/出力端子

A/V OUT端子
10ピン特殊コネクター
映像:1 Vp-p、75 Ω
Y出力 1Vp-p、75Ω
C出力 0.286Vp-p、75Ω
音声:327mV(47 kΩ負荷時)、出力インピーダンス2.2 kΩ以下

USB端子
mini-B

REMOTE端子
ステレオミニミニジャック(∅ 2.5mm)

液晶画面

画面サイズ
6.9cm(2.7型アスペクト比16:9)

総ドット数
211 200ドット
横960×縦220

電源部、その他

電源電圧
バッテリー端子入力6.8V/7.2V
DC端子入力8.4V

消費電力
ファインダー使用時、明るさ標準:4.5W
液晶画面使用時、明るさ標準:4.7W

動作温度
0℃～+40℃

保存温度
-20℃～+60℃

外形寸法
70×87×142mm(幅×高さ×奥行き) (突起部含む)
70×87×145mm(幅×高さ×奥行き) (突起部含む、付属バッテリーNP-FH60装着状態)

本体質量
約510g(本体のみ)

撮影時総質量
約590g(バッテリーNP-FH60、ディスク含む。)

付属品
ACアダプター (1)
電源コード (1)
AV接続ケーブル (1)
USBケーブル (1)
ワイヤレスリモコン (1)
リチャージャブルバッテリーパックNP-FH60 (1)
CD-ROM「Handycam ApplicationSoftware」(1)
取扱説明書 (1)
保証書 (1)

ACアダプター AC-L200/L200B

電源
AC100～240V、50/60Hz

消費電力
18W

定格出力
DC8.4V *

動作温度
0℃～+40℃

保存温度
-20℃～+60℃

外形寸法
約48×29×81mm(最大突起部をのぞく)
(幅×高さ×奥行き)

質量
約170g(本体のみ)

* その他の仕様についてはAC アダプターのラベルをご覧ください。

リチャージャブルバッテリーパック NP-FH60

最大電圧
DC8.4V

公称電圧
DC7.2V

容量
7.2Wh(1 000mAh)

最大外形寸法
約31.8×33.3×45.0mm (幅×高さ×奥行き)

質量
約80g

使用温度
0℃～+40℃

使用電池
Li-ion

本機の仕様および外観は、改良のため予告なく変更することがありますが、ご了承ください。

- ドルビーラボラトリーズからの実施権に基づき製造されています。

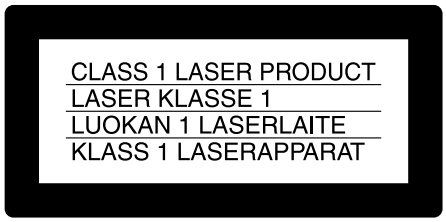
Model information table

Model	DCR-DVD406E	DCR-DVD408	DCR-DVD408E	DCR-DVD506E	DCR-DVD508
Destination	AEP, UK, EE	US, CND, E, JE, BR	NE, JE	AEP, UK, EE	US, CND, E, JE, J
Color system	PAL	NTSC	PAL	PAL	NTSC
CMOS	1/3 type	1/3 type	1/3 type	1/2.9 type	1/2.9 type
Recording pixels (Max)	4.0M pixels	4.0M pixels	4.0M pixels	6.1M pixels	6.1M pixels
CM board	CM-076	CM-076	CM-076	CM-077	CM-077
LD board	LD-215	LD-215	LD-215	LD-216	LD-216

Model	DCR-DVD508E	DCR-DVD808	DCR-DVD808E	DCR-DVD908	DCR-DVD908E
Destination	NE, JE	E, KR	E, HK, AUS, CH	E, KR	E, HK, AUS, CH
Color system	PAL	NTSC	PAL	NTSC	PAL
CMOS	1/2.9 type	1/3 type	1/3 type	1/2.9 type	1/2.9 type
Recording pixels (Max)	6.1M pixels	4.0M pixels	4.0M pixels	6.1M pixels	6.1M pixels
CM board	CM-077	CM-076	CM-076	CM-077	CM-077
LD board	LD-216	LD-215	LD-215	LD-216	LD-216

- Abbreviation
  AR : Argentine model
  AUS : Australian model
  BR : Brazilian model
  CH : Chinese model
  CND : Canadian model
  EE : East European model
  HK : Hong Kong model
  J : Japanese
  JE : Tourist model
  KR : Korea model
  MX : Mexican model
  NE : North European model

CAUTION :
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.



WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30 cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

CAUTION:
The use of optical instrument with this product will increase eye hazard.

CAUTION
Use of controls or adjustments or performance procedures other than those specified herein may result in hazardous radiation exposure.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
   - Keep the temperature of the soldering iron around 270˚C during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

Unleaded solder

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

注意
電池の交換は，正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

サービス，点検時には次のことにご注意下さい。

1. **注意事項をお守りください。**
   サービスのとき特に注意を要する個所については，キャビネット，シャーシ，部品などにラベルや捺印で注意事項を表示しています。これらの注意書き及び取扱説明書等の注意事項を必ずお守り下さい。
2. **指定部品のご使用を**
   セットの部品は難燃性や耐電圧など安全上の特性を持ったものとなっています。従って交換部品は，使用されていたものと同じ特性の部品を使用して下さい。特に回路図，部品表に⚠印で指定されている安全上重要な部品は必ず指定のものをご使用下さい。
3. **部品の取付けや配線の引きまわしはもとどおりに**
   安全上，チューブやテープなどの絶縁材料を使用したり，プリント基板から浮かして取付けた部品があります。また内部配線は引きまわしやクランパによって発熱部品や高圧部品に接近しないよう配慮されていますので，これらは必ずもとどおりにして下さい。
4. **サービス後は安全点検を**
   サービスのために取外したネジ，部品，配線がもとどおりになっているか，またサービスした個所の周辺を劣化させてしまったところがないかなどを点検し，安全性が確保されていることを確認して下さい。
5. **チップ部品交換時の注意**
   - 取外した部品は再使用しないで下さい。
   - タンタルコンデンサのマイナス側は熱に弱いため交換時は注意して下さい。
6. **フレキシブルプリント基板の取扱いについて**
   - コテ先温度を270℃前後にして行なって下さい。
   - 同一パターンに何度もコテ先を当てないで下さい。（３回以内）
   - パターンに力が加わらないよう注意して下さい。
7. **無鉛半田について**
   無鉛半田を使用している基板には，無鉛（Lead　Free）を意味するレッドフリーマークがプリントされています。
   （注意：基板サイズによっては，無鉛半田を使用していてもレッドフリーマークがプリントされていないものがあります）
   ：レッドフリーマーク
   無鉛半田には，以下の特性があります。
   - 融点が従来の半田よりも約40℃高い。
     従来の半田こてをそのまま使用することは可能ですが，少し長めにこてを当てる必要があります。
     温度調節機能のついた半田こてを使用する場合，約350℃に設定して下さい。
     注意：半田こてを長く当てすぎると，基板のパターン（銅箔）がはがれてしまうことがありますので，注意して下さい。
   - 粘性が強い
     従来の半田よりも粘性が強いため，IC端子などが半田ブリッジしないように注意して下さい。
   - 従来の半田と混ぜて使用可能
     無鉛半田には無鉛半田を追加するのが最適ですが，従来の半田を追加しても構いません。

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1. SERVICE NOTE

ENGLISH JAPANESE

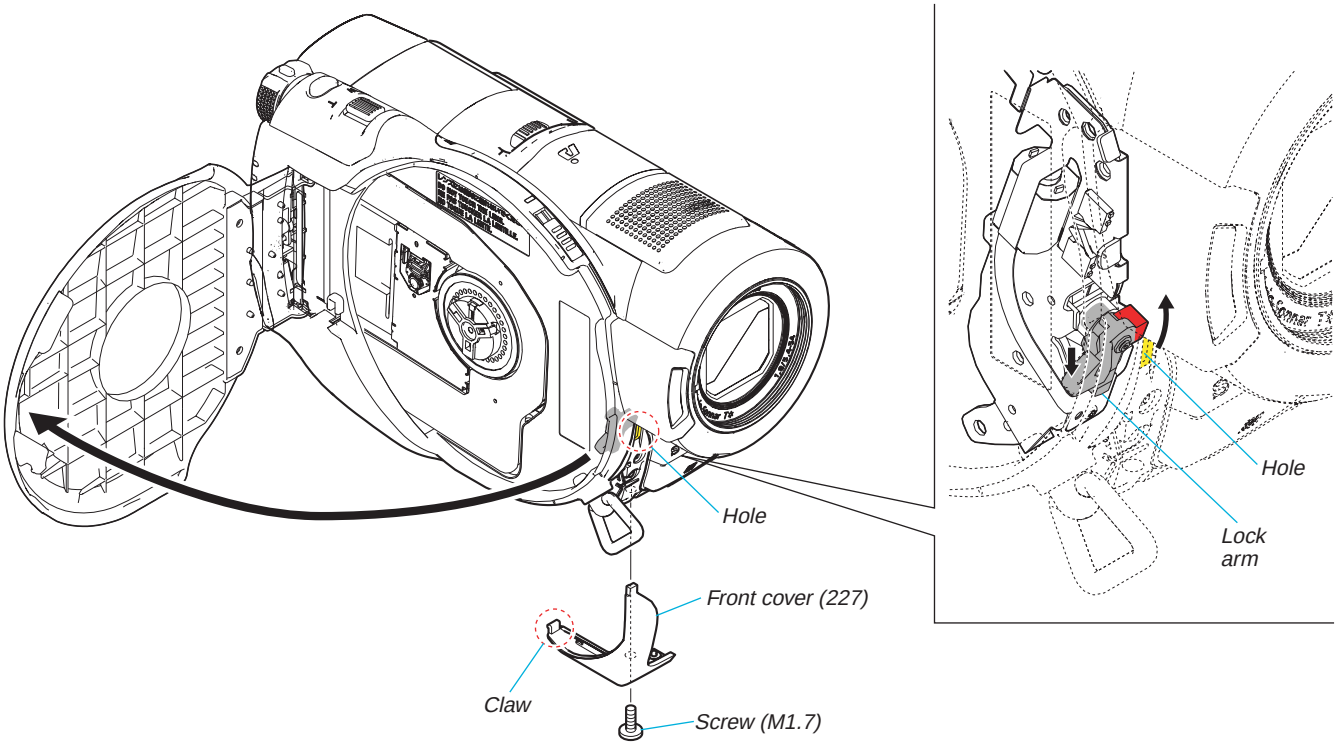
1-1. POWER SUPPLY DURING REPAIRS

In this unit, about 10 seconds after power is supplied to the battery terminal using the regulated power supply (8.4V), the power is shut off so that the unit cannot operate.
These following method is available to prevent this.

Method:
Use the AC power adaptor (AC-L200/L200B).

1-2. TO TAKE OUT A DISC WHEN NOT EJECT (FORCE EJECT)

① Remova the screw (M1.7) and front cover (227).
② Insert the wire etc. in the hole and up the lock arm by it.



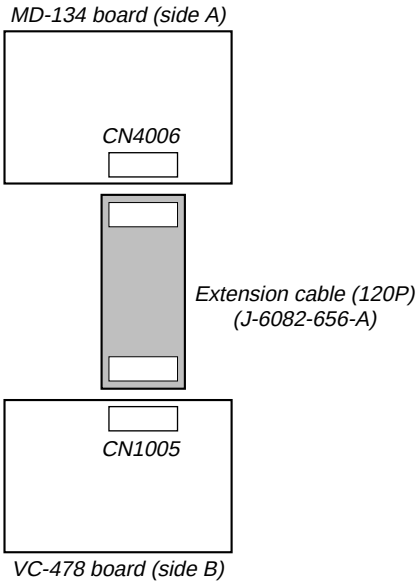
1-3. PRECAUTION ON REPLACING THE VC-478 BOARD.

DESTINATION DATA
When you replace to the repairing board, the written destination data of repairing board also might be changed to original setting.
Refer to Service Manual ADJ, and perform “DESTINATION DATA WRITE”.

USB SERIAL No.
The set is shipped with a unique ID (USB Serial No.) written in it.
This ID has not been written in a new board for service, and therefore it must be entered after the board replacement.
Refer to Service Manual ADJ, and perform “USB SERIAL No. INPUT”.

1-4. USING SERVICE JIG

1. Connect the extension cable (J-6082-656-A) between CN4006 on the MD-134 board and CN1005 on the VC-478 board.



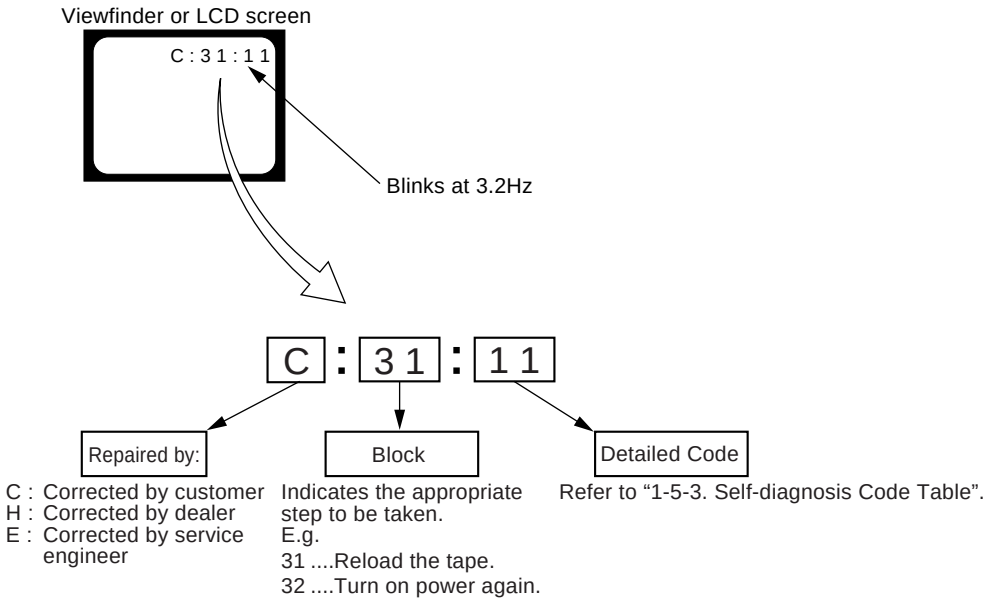
1-5. SELF-DIAGNOSIS FUNCTION

1-5-1. Self-diagnosis Function

When problems occur while the unit is operating, the self-diagnosis function starts working, and displays on the viewfinder or LCD screen what to do.
Details of the self-diagnosis functions are provided in the Instruction manual.

1-5-2. Self-diagnosis Display

When problems occur while the unit is operating, the counter of the viewfinder or LCD screen shows a 4-digit display consisting of an alphabet and numbers, which blinks at 3.2 Hz. This 5-character display indicates the “repaired by:”, “block” in which the problem occurred, and “detailed code” of the problem.


Viewfinder or LCD screen
C : 3 1 : 1 1
Blinks at 3.2Hz
C : 31 : 11
Repaired by:
Block
Detailed Code
C : Corrected by customer
H : Corrected by dealer
E : Corrected by service engineer
Indicates the appropriate step to be taken.
E.g.
31 ....Reload the tape.
32 ....Turn on power again.
Refer to “1-5-3. Self-diagnosis Code Table”.

1-5-3. Self-diagnosis Code Table

Self-diagnosis Code					Symptom/State	Correction
Repaired by:	Block Function		Detailed Code			
C	0	4	0	0	Non-standard battery is used.	Use the InfoLITHIUM battery.
C	1	3	0	1	"Memory Stick Duo" is unformatted. "Memory Stick Duo" is broken.	Format the "Memory Stick Duo". Insert a new "Memory Stick Duo".
C	1	3	0	2	Disc access error	Clean the disc with the supplied cleaning cloth. Use a compatible disc with the camcorder.
C	3	2	6	0	Difficult to adjust focus (Cannot initialize focus)	Retry turn the power on by the power switch. If it does not recover, check the focus MR sensor of lens block (pin ⑲, ㉑ of CN5302 on the LD-215 board) (Note1), (pin ⑯, ⑱ of CN5302 on the LD-216 board) (Note2). If it is OK, check the focus motor drive IC (IC5404 on the LD-215 board) (Note1), (IC5404 on the LD-216 board) (Note2) .
E	2	0	0	0	EEPROM data are rewritten.	Make EEPROM data correct value.
E	3	1	0	0	Drive fault	Inspect or replacement of the mechanism deck, IC (IC4401 on the MD-134 board) and drive block
E	6	1	1	0	Zoom operations fault (Cannot initialize zoom lens.)	Inspect the lens block zoom MR sensor (pin ⑯, ⑱ of CN5302 on the LD-215 board) (Note1), (pin ⑳, ㉑ of CN5302 on the LD-216 board) (Note2). when zooming is performed when the zoom lever is operated, and the zoom motor drive circuit (IC5404 on the LD-215 board) (Note1), (IC5404 on the LD-216 board) (Note2) when zooming is not performed.
E	6	1	1	1	The abnormalities in initialization of the focus lens and the abnormalities in initialization of the zoom lens occurred simultaneously.	Check both C: 32: 60 and E: 61: 10 of the self-diagnosis code.
E	6	2	0	0	Handshake correction function does not work well. (With PITCH angular velocity sensor output stopped.)	Inspect PITCH angular velocity sensors (SE8202 on the CM-076 board) (Note1), (SE7202 on the CM-077 board) (Note2) peripheral circuits.
E	6	2	0	1	Handshake correction function does not work well. (With YAW angular velocity sensor output stopped.)	Inspect YAW angular velocity sensors (SE8201 on the CM-076 board) (Note1), (SE7201 on the CM-077 board) (Note2) peripheral circuits.
E	6	2	0	2	Abnormality of IC for steadyshot.	Refer to [1-7-1. E : 62 : 02 (Abnormality of IC for Steadyshot) Occurred] (Note 2).
E	6	2	0	3	IC for steadyshot and micro controller communication abnormality among.	Inspect the steadyshot circuit (IC5703 on the LD-216 board) (Note 2).
E	6	2	1	0	Shift lens initializing failure.	Note 2: 1. Inspect the EEPROM (IC1804 on the VC- 478). 2. Perform the STEADY HALL adjustment. (Note 4) 3. Replace the lens block. (Note 5)
E	6	2	1	1	Shift lens overheating (Pitch).	Refer to [1-7-2. E : 62 : 11 (Shift Lens Overheating (Pitch)) Occurred] (Note 2).
E	6	2	1	2	Shift lens overheating (Yaw).	Refer to [1-7-3. E : 62 : 12 (Shift Lens Overheating (Yaw)) Occurred] (Note 2).
E	6	2	2	0	Abnormality of thermistor.	Refer to [1-7-4. E : 62 : 20 (Abnormality of Thermistor) Occurred] (Note 2).
E	9	1	0	1	Abnormality when flash is being charged.	Checking of flash unit or replacement of flash unit. (Note 3)
E	9	4	0	0	Fault of writing to or erasing the flashmemory	Inspect the flash memory (IC4302 on the MD-134 board).

Note1: DCR-DVD406E/DVD408/DVD408E/DVD808/DVD808E only.
Note2: DCR-DVD506E/DVD508/DVD508E/DVD908/DVD908E only.
Note3: After repair, be sure to perform "1-6. PROCESS AFTER FIXING FLASH ERROR".
Note4: Perform adjustment by referring to "STEADY HALL Adjustment" in Service Manual, ADJ. After the adjustment, be sure to perform "GYRO Sensor Sensitivity Adjustment".
Note5: When the lens block was replaced, execute the necessary adjustment items referring to Service Manual, ADJ.
After the adjustment, make sure with the STEADYSHOT turned ON that the steadyshot functions appropriately in the handheld operation.

1-6. PROCESS AFTER FIXING FLASH ERROR

When “FLASH error” (Self-diagnosis Code E:91:01) occurs, to prevent any abnormal situation caused by high voltage, setting of the flash is changed automatically to disabling charge and flash setting.
After fixing, this setting needs to be deactivated. For the method of the error releasa, refer to “6.Record Data, Initializing method (All Record-Data)” in service manual, ADJ.

Note: The error cannot be released only by initializing oniy the self-diagnosis data, be sure to excute the initiazation of all record-data to release the error.

1-7. METHOD OF COPING WITH SHIFT LENS ERROR (DVD506E/DVD508/DVD508E/DVD908/DVD908E)

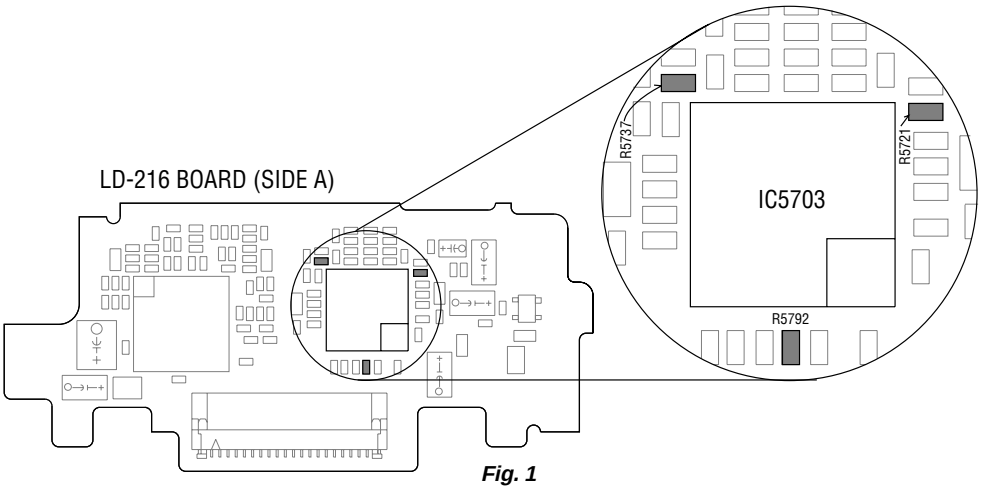
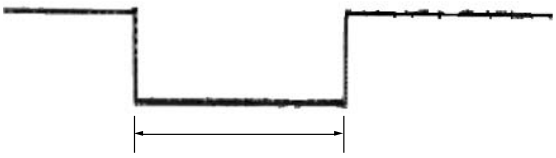


Fig. 1
Measurement points on the LD-216 board



Note: The length of low section will vary a little depending on the conditions.

Fig. 2
Change in output voltage of R5792 on the LD-216 board

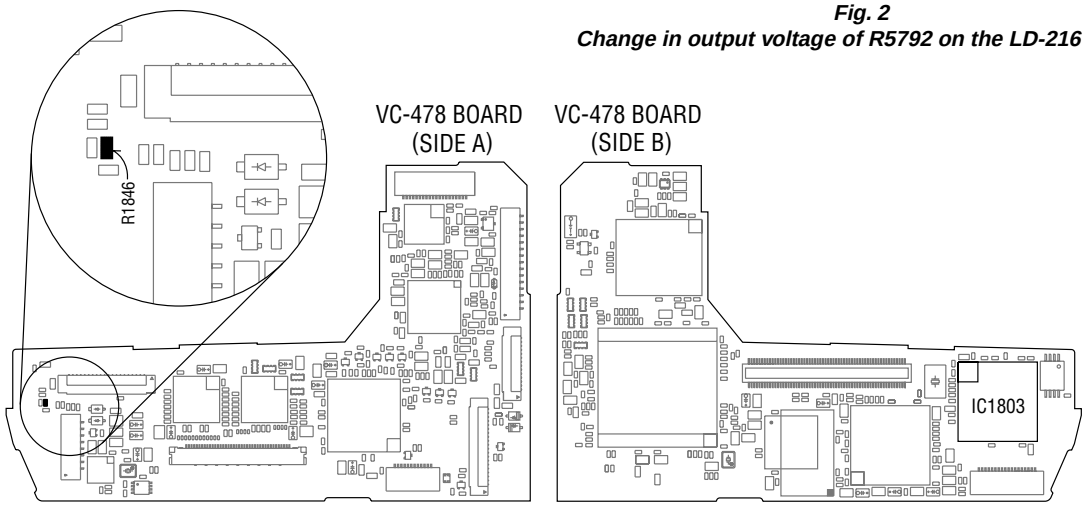


Fig. 3
Measurement points on the VC-478 board

1-7-1. E : 62 : 02 [Abnormality of IC for Steadyshot] Occurred

Order	Procedure
1	Turn the power OFF.
2	While measuring with an oscilloscope the output voltage of R5792 in the periphery of IC5703 on the LD-216 board, turn the power ON to check that the output voltage immediately after the power on change as shown in Fig. 2.
3	If the output voltage change as shown in Fig. 2, replace the lens block (Note). If it does not change as shown in Fig. 2, inspect the camera control circuit (IC1803 of VC-478 board) periphery.

Note: When the lens block was replaced, execute a necessary adjustment items referring to Service Manual, ADJ.
After the adjustment, make sure with the STEADYSHOT turned ON that the steadyshot functions appropriately in the handheld operation.

1-7-2. E : 62 : 11 [Shift Lens Overheating (Pitch)] Occurred

Connect by the SeusEX and perform the following process.

Order	Block	Page	Address	Data	Procedure
1	11	80	6BB2	01	Write the data.
2	11	80	7D46	F0	Write the data.
3	11	80	7D48	01	Write the data. (Note 1)
4	11	80	7D48	00	Write the data.
5	11	80	7D46	10	Write the data.
6	11	80	7D48	01	Write the data. (Note 1)
7	11	80	7D48	00	Write the data.
8	11	80	6BB2	00	Write the data.
9					Check if the shift lens moves while setting the order 2 to 7. If the shift lens does not move, replace the lens block (Note 2). When the shift lens moved, proceed to the order 10.
10					While setting the order 2 to 7, measure with an oscilloscope the output voltage of R5721 in the periphery of IC5703 on the LD-216 board to check the output voltage varies.
11					If the output voltage does not vary, replace the lens block (Note 2). When the output voltage varied, proceed to the order 12.
12					Turn the power OFF.
13					While measuring with an oscilloscope the output voltage of R5792 in the periphery of IC5703 on the LD-216 board, turn the power ON to check that the output voltage immediately after the power on change as shown in Fig. 2.
14					If the output voltage change as shown in Fig. 2, replace the lens block (Note 2). If it does not change as shown in Fig. 2, inspect the camera control circuit (IC1803 of VC- 478 board) pe riphery.

Note 1: Finish this operation within 10 seconds. If it is likely to take more than 10 seconds, set block: 11, page: 80, address: 7D48, data: 00, and then retry.

Note 2: When the lens block was replaced, execute the necessary adjustment items referring to Service Manual, ADJ.
After the adjustment, make sure with the STEADYSHOT turned ON that the steadyshot functions appropriately in the handheld operation.

1-7-3. E : 62 : 12 [Shift Lens Overheating (Yaw)] Occurred

Connect by the SeusEX and perform the following process.

Order	Block	Page	Address	Data	Procedure
1	11	80	6BB2	01	Write the data.
2	11	80	7D47	F0	Write the data.
3	11	80	7D49	01	Write the data. (Note 1)
4	11	80	7D49	00	Write the data.
5	11	80	7D47	10	Write the data.
6	11	80	7D49	01	Write the data. (Note 1)
7	11	80	7D49	00	Write the data.
8	11	80	6BB2	00	Write the data.
9					Check if the shift lens moves while setting the order 2 to 7. If the shift lens does not move, replace the lens block (Note 2). When the shift lens moved, proceed to the order 10.
10					While setting the order 2 to 7, measure with an oscilloscope the output voltage of R5737 in the periphery of IC5703 on the LD-216 board to check the output voltage varies.
11					If the output voltage does not vary, replace the lens block (Note 2). When the output voltage varied, proceed to the order 12.
12					Turn the power OFF.
13					While measuring with an oscilloscope the output voltage of R5792 in the periphery of IC5703 on the LD-216 board, turn the power ON to check that the output voltage immediately after the power on change as shown in Fig. 2.
14					If the output voltage change as shown in Fig. 2, replace the lens block (Note 2). If it does not change as shown in Fig. 2, inspect the camera control circuit (IC1803 of VC-478 board) pe riphery.

Note 1: Finish this operation within 10 seconds. If it is likely to take more than 10 seconds, set block: 11, page: 80, address: 7D49, data: 00, and then retry.

Note 2: When the lens block was replaced, execute the necessary adjustment items referring to Service Manual, ADJ. After the adjustment, make sure with the STEADYSHOT turned ON that the steadyshot functions appropriately in the handheld operation.

1-7-4. E : 62 : 20 [Abnormality of Thermistor] Occurred

Order	Procedure
1	Turn the power ON.
2	Check that R1846 in the periphery of IC1803 on the VC-478 board is 0 Ω and energizes. If it is not energizes, replace the R1846. When R1846 is 0 Ω and energizes, replace the lens block (Note).
3	Check that no error occurs, after replacing the lens block and performing the necessary adjustment. If an error occurs, inspect the camera control circuit (IC1803 of VC-478 board) periphery.

Note: When the lens block was replaced, execute the necessary adjustment items referring to Service Manual, ADJ. After the adjustment, make sure with the STEADYSHOT turned ON that the steadyshot functions appropriately in the handheld operation.

1-1. 修理時の電源供給について

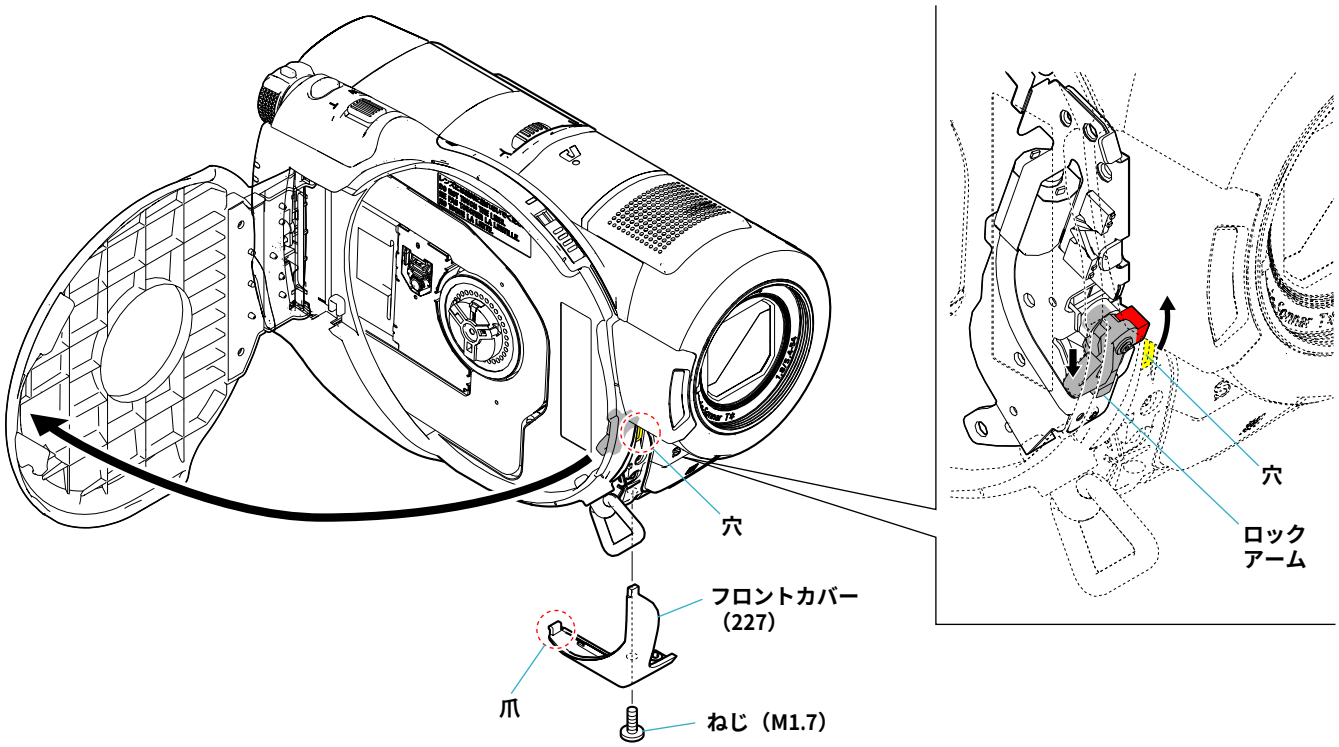
本機では，安定化電源（8.4Vdc）からバッテリ端子に電源を供給した場合，約10秒後にシャットオフし，動作しなくなります。
これを避けるため，下記の方法を用いてください。

方法：

DC入力端子を使用する。（ACアダプタ（AC-L200/L200B）を使用する。）

1-2. イジェクトしない時のディスク取出し方法（強制イジェクト）

① ねじ（M1.7）とフロントカバー（227）を外す。
② 穴に針金等を差し込　み、ロックアームを上げる。



1-3. VC-478基板交換時の注意

仕向けデータ

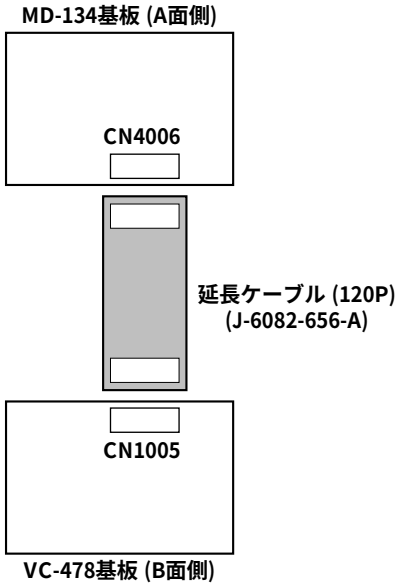
補修用基板と交換する時，補修用基板に書かれている仕向けデータは元の設定と違っている場合があります。
ADJ編を参照して，「DESTINATION　DATA　WRITE」を行ってください。

USBシリアルNo.

セットは，1台毎に異なる固有のID（USB Serial No.）を書き込んだ後，出荷されています。
新品の補修用基板には，このIDが書き込まれていないので，基板交換後にIDを入力する必要があります。
ADJ編を参照して，「USB　SERIAL　No.　INPUT」を行ってください

1-4. 使用サービス治具

1. 延長ケーブル（J-6082-656-A）をMD-134基板CN4006とVC-478基板CN1005の間に接続します。



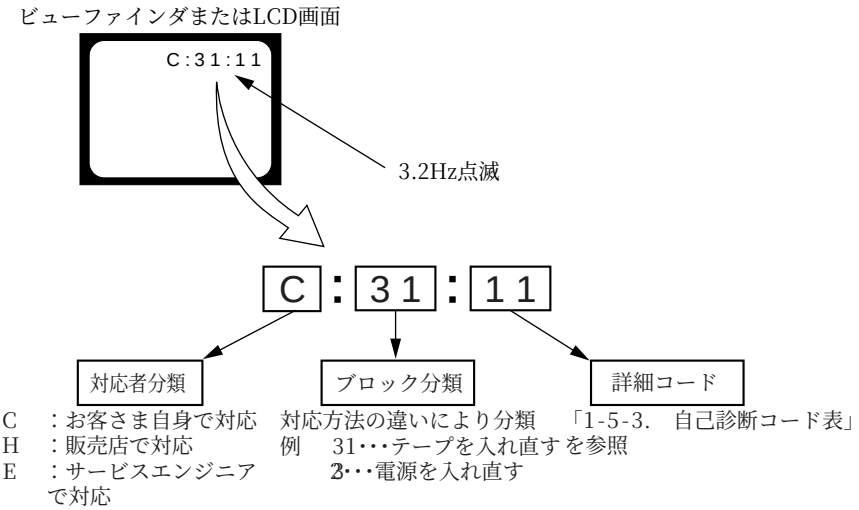
1-5. 自己診断機能

1-5-1.自己診断機能について

本機の動作に不具合が生じたとき，自己診断機能が働き，ビューファインダまたはLCD画面に，どう処置したらよいか判断できる表示を行います。自己診断機能については取扱説明書にも掲載されています。

1-5-2.自己診断表示

本機の動作に不具合が生じたとき，ビューファインダまたはLCD画面のカウンタ表示部分がアルファベットと数字の4桁表示になり，3.2Hzで点滅します。この5文字の表示によって対応者分類および不具合の生じたブロックの分類，不具合の詳細コードを示します。



C ：お客さま自身で対応
H ：販売店で対応
E ：サービスエンジニアで対応

対応方法の違いにより分類
例 31･･･テープを入れ直すを参照
32･･･電源を入れ直す

「1-5-3. 自己診断コード表」

1-5-3.自己診断コード表

自己診断コード				症状／状態	対応／方法
対応者	ブロック機能		詳細コード		
C	0	4	0 0	標準以外のバッテリを使用している	インフォリチウムバッテリを使用する。
C	1	3	0 1	フォーマットしていない“メモリーステックデュオ”を入れた“メモリーステックデュオ”が壊れている	“メモリーステックデュオ”をフォーマットする。 新しい“メモリーステックデュオ”に交換する。
C	1	3	0 2	ディスクアクセスエラー	ディスククリーニングをする。または本機に対応したディスクに交換する。
C	3	2	6 0	フォーカスが合いにくい （フォーカスの初期化ができない）	操作スイッチの電源を入れ直す。 復帰しない場合，レンズブロックのフォーカスMRセンサ（LD-216基板CN5302 ⑯，⑱ピン）を点検する。異常なければフォーカスモータ駆動回路（LD-216基板IC5404）を点検する。
E	2	0	0 0	EEPROMが書き換えられている	EEPROMのデータを元の値に戻す。
E	3	1	0 0	ドライブ不良	メカデッキ駆動IC（MD-134基板　IC4401）周辺回路および駆動部分を点検または交換する。
E	6	1	1 0	ズーム動作の異常（ズームレンズの初期化ができない）	ズームレバーを操作したときにズーム動作をすれば，レンズブロックのズームMRセンサ（LD-216基板CN5302 ⑳，㉑ピン）を点検する。ズーム動作をしなければズームモータ駆動回路（LD-216基板IC5404）を点検する。
E	6	1	1 1	フォーカス，ズーム異常	自己診断コードC:32:60とE:61:10の両方を点検する。
E	6	2	0 0	手振れ補正が効きにくい（PITCH角速度センサ出力張り付き）	PITCH角速度センサ（CM-077基板SE7202）周辺回路を点検する。
E	6	2	0 1	手振れ補正が効きにくい（YAW　角速度センサ出力張り付き）	YAW角速度センサ（CM-077基板SE7201）周辺回路を点検する。
E	6	2	0 2	手振れ補正用ICの異常	「1-7-1.　E62:02(手振れ補正用ICの異常)が出た場合」を参照。
E	6	2	0 3	手振れ補正用ICとマイクロコントローラーとの通信異常	手振れ補正回路（LD-216基板IC5703）を点検。
E	6	2	1 0	シフトレンズ初期化異常	1.　EEPROM(VC-478基板IC1804)を点検する。 2.　STEADY　HALL調整を行う(注1) 3.　レンズブロックを交換する。(注2)
E	6	2	1 1	シフトレンズオーバーヒート(PITCH)	「1-7-2.　E62:11(シフトレンズオーバーヒート(PITCH))が出た場合」を参照。
E	6	2	1 2	シフトレンズオーバーヒート(YAW)	「1-7-3.　E62:12(シフトレンズオーバーヒート(YAW))が出た場合」を参照。
E	6	2	2 0	サーミスタの異常	「1-7-4.　E62:20(サーミスタの異常)が出た場合」を参照。
E	9	1	0 1	フラッシュの充電異常	フラッシュユニットの点検または交換をする。(注3)
E	9	4	0 0	フラッシュメモリの書込み/消去動作不良	フラッシュメモリ(MD-134基板IC4302)を点検する。

注意1：ADJ編「STEADY　HALL　Adjustment」を参照して調整を実施すること。調整後は「GYRO　Sensor　Sensitivity Adjustment」を必ず実施すること。

注意2：レンズブロックを交換した場合は，ADJ編を参照して必要な調整項目を実施すること。調整後は手振れ補正ONの状態にして，手持ち動作で手振れ補正が適切に動作していることを確認する。

注意3：修理後は、必ず「1-6.フラッシュ異常修理後の処置」を行ってください。

1-6. フラッシュ異常修理後の処置

フラッシュエラー（自己診断コード E：91：01）発生時は、高電圧による異常を防止するために自動的にフラッシュ充電・発光禁止の設定になります。修理後は、この設定を解除する必要があります。エラーの解除は、ADJ編「6.Record Data」の「Initializing method (All Record-Data)」を参照してください。

注意：自己診断履歴のみの初期化だけでは、エラーの解除は出来ません。エラー解除を行うには、必ず全履歴データの初期化を行ってください。

1-7. シフトレンズエラーの対処法

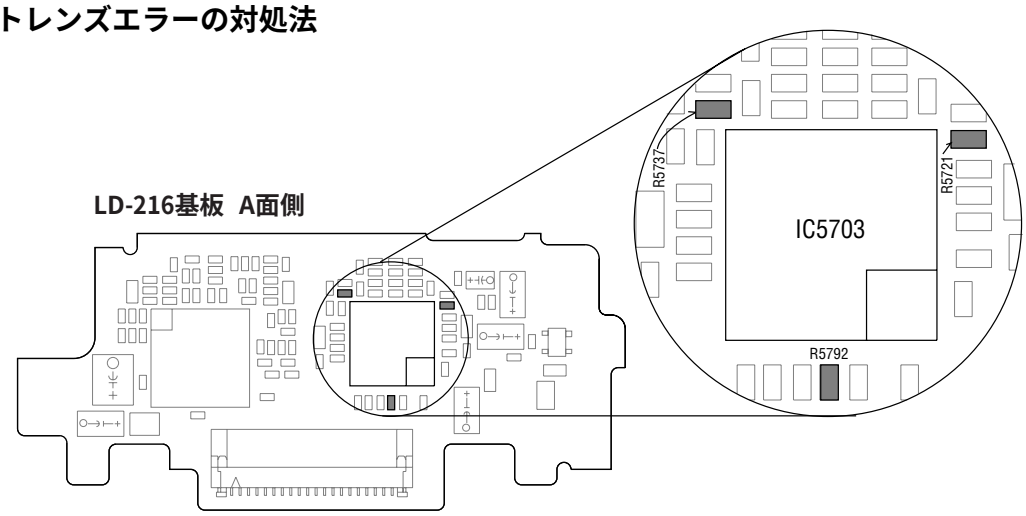
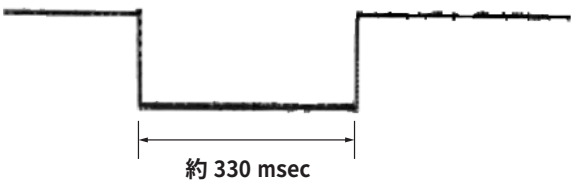


図1. LD-216基板測定箇所



注意：Lowの区間の長さは場合によって多少異なる

図2. LD-216基板R5792の出力電圧の変化

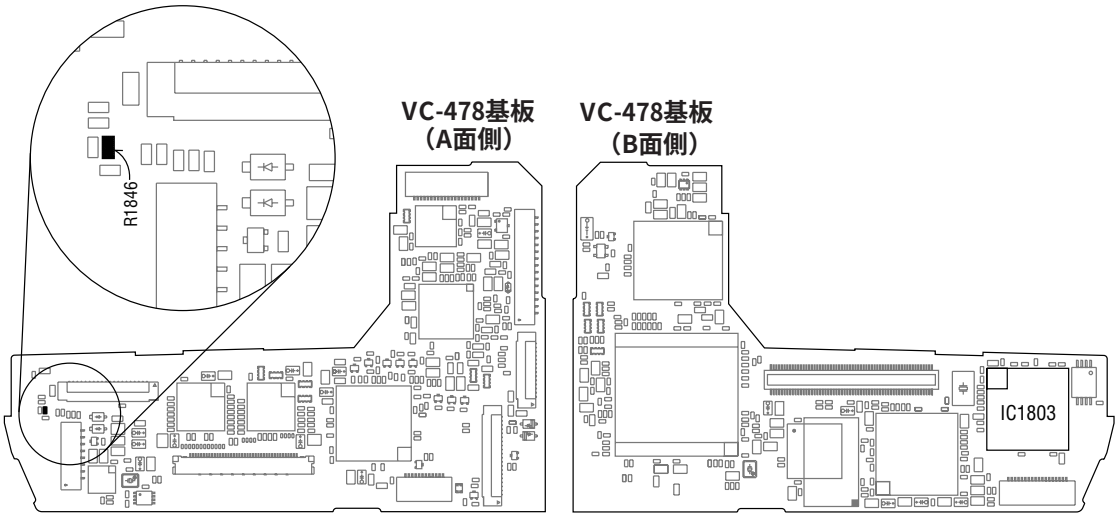


図3. VC-478基板測定箇所

1-7-1. E：62：02(手振れ補正用ICの異常)が出た場合

順序	作業内容
1	電源を切る。
2	LD-216基板IC5703の周辺にあるR5792の出力電圧をオシロスコープで測定しながら電源を入れる。電源投入直後の出力電圧が図2の様に変化することを確認する。
3	出力電圧が図2の様に変化するときはレンズブロックを交換する(注)。図2の様に変化しないときはカメラコントロール回路(VC-478基板IC1803)周辺を点検する。

注意：レンズブロックを交換した場合は，ADJ編を参照して必要な調整項目を実施すること。調整後は手振れ補正ONの状態にして，手持ち動作で手振れ補正が適切に動作していることを確認する。

1-7-2. E：62：11(シフトレンズオーバーヒート(PITCH))が出た場合

SeusEXで接続し、次の手順を行う。

順序	ブロック	ページ	アドレス	データ	作業内容
1	11	80	6BB2	01	データを書き込む。
2	11	80	7D46	F0	データを書き込む。
3	11	80	7D48	01	データを書き込む。(注1)
4	11	80	7D48	00	データを書き込む。
5	11	80	7D46	10	データを書き込む。
6	11	80	7D48	01	データを書き込む。(注1)
7	11	80	7D48	00	データを書き込む。
8	11	80	6BB2	00	データを書き込む。
9					順序2～7を設定している間にシフトレンズが動いたか確認する。もしシフトレンズが動かない場合はレンズブロックを交換する(注2)。動く場合は順序10に進む。
10					LD-216基板IC5703の周辺にあるR5721の出力電圧をオシロスコープで測定しながら，順序2～7を設定したときに出力電圧が変化することを確認する。
11					出力電圧が変化しないときはレンズブロックを交換する(注2)。変化するときは順序12に進む。
12					電源を切る。
13					LD-216基板IC5703の周辺にあるR5792の出力電圧をオシロスコープで測定しながら電源を入れる。電源投入直後の出力電圧が図2の様に変化することを確認する。
14					出力電圧が図2の様に変化するときはレンズブロックを交換する(注2)。図2の様に変化しないときはカメラコントロール回路(VC-478基板IC1803)周辺を点検する。

注意1：この操作は10秒以内に終了してください。もし10秒以上経過しそうな場合は，ブロック：11，ページ：80，アドレス：7D48，データ：00 に設定しなおしてから再度実行してください。

注意2：レンズブロックを交換した場合は，ADJ編を参照して必要な調整項目を実施すること。調整後は手振れ補正ONの状態にして，手持ち動作で手振れ補正が適切に動作していることを確認する。

1-7-3. E：62：12(シフトレンズオーバーヒート(YAW))が出た場合

SeusEXで接続し、次の手順を行う。

順序	ブロック	ページ	アドレス	データ	作業内容
1	11	80	6BB2	01	データを書き込む。
2	11	80	7D47	F0	データを書き込む。
3	11	80	7D49	01	データを書き込む。(注1)
4	11	80	7D49	00	データを書き込む。
5	11	80	7D47	10	データを書き込む。
6	11	80	7D49	01	データを書き込む。(注1)
7	11	80	7D49	00	データを書き込む。
8	11	80	6BB2	00	データを書き込む。
9					順序2～7を設定している間にシフトレンズが動いたか確認する。もしシフトレンズが動かない場合はレンズブロックを交換する(注2)。動く場合は順序10に進む。
10					LD-216基板IC5703の周辺にあるR5737の出力電圧をオシロスコープで測定しながら，順序2～7を設定したときに出力電圧が変化することを確認する。
11					出力電圧が変化しないときはレンズブロックを交換する(注2)。変化するときは順序12に進む。
12					電源を切る。
13					LD-216基板IC5703の周辺にあるR5792の出力電圧をオシロスコープで測定しながら電源を入れる。電源投入直後の出力電圧が図2の様に変化することを確認する。
14					出力電圧が図2の様に変化するときはレンズブロックを交換する(注2)。図2の様に変化しないときはカメラコントロール回路(VC-478基板IC1803)周辺を点検する。

注意1：この操作は10秒以内に終了してください。もし10秒以上経過しそうな場合は，ブロック：11，ページ：80，アドレス：7D49，データ：00 に設定しなおしてから再度実行してください。

注意2：レンズブロックを交換した場合は，ADJ編を参照して必要な調整項目を実施すること。調整後は手振れ補正ONの状態にして，手持ち動作で手振れ補正が適切に動作していることを確認する。

1-7-4. E：62：20(サーミスタの異常)が出た場合

順序	作業内容
1	電源を入れる。
2	VC-478基板IC1803の周辺にあるR1846が0Ωであり，かつ通電していることを確認する。通電していない場合はR1846を交換する。R1846が0Ωであり，かつ通電している場合はレンズブロックを交換する(注)。
3	レンズブロックを交換し必要な調整を行った後，エラーが発生しないことを確認する。もしエラーが発生する場合はカメラコントロール回路(VC-478基板IC1803)周辺を点検する。

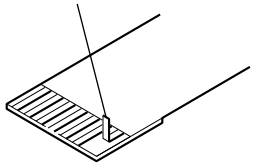
注意：レンズブロックを交換した場合は，ADJ編を参照して必要な調整項目を実施すること。調整後は手振れ補正ONの状態にして，手持ち動作で手振れ補正が適切に動作していることを確認する。

2. DISASSEMBLY

NOTE FOR REPAIR

- Make sure that the flat cable and flexible board are not cracked of bent at the terminal. Do not insert the cable insufficiently nor crookedly.
- When remove a connector, dont' pull at wire of connector. It is possible that a wire is snapped.
- When installing a connector, dont' press down at wire of connector. It is possible that a wire is snapped.

Cut and remove the part of gilt which comes off at the point. (Be careful or some pieces of gilt may be left inside)

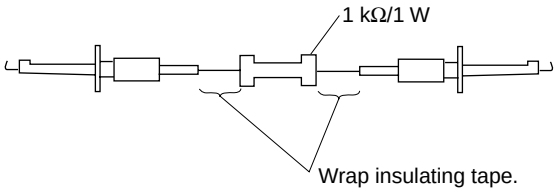


DISCHARGING OF THE ST-154 BOARD'S CHARGING CAPACITOR (C5206)

The charging capacitor (C5206) of the ST-154 board is charged up to the maximum 330 V potential.
There is a danger of electric shock by this high voltage when the capacitor is handled by hand. The electric shock is caused by the charged voltage which is kept without discharging when the main power of the unit is simply turned off. Therefore, the remaining voltage must be discharged as described below.

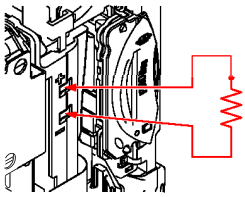
Preparing the Short Jig

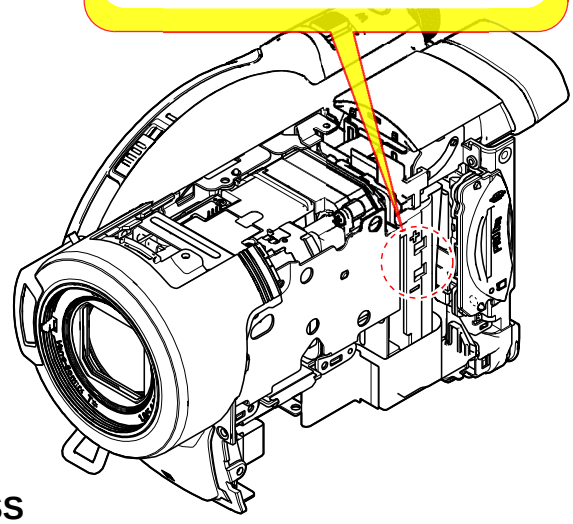
To preparing the short jig, a small clip is attached to each end of a resistor of 1 kΩ /1 W (1-215-869-11).
Wrap insulating tape fully around the leads of the resistor to prevent electrical shock.



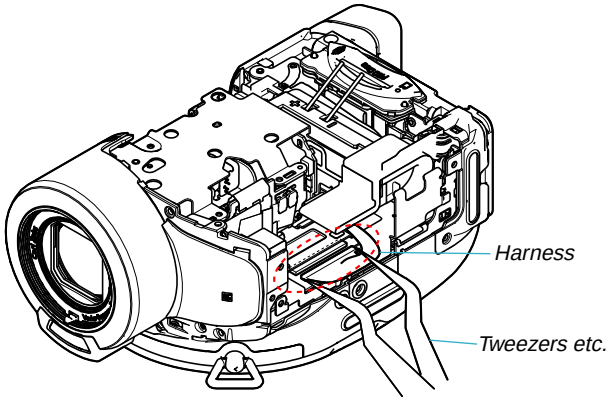
Note: High-voltage cautions

Discharging the Capacitor
Short-circuit between the two points with the short jig about 10 seconds.





NOTE FOR DISCONNECTING THE HARNESS



When disconnecting the harness, do not pull the harness part but pull off the connector body with tweezers etc.

2-1. DISASSEMBLY

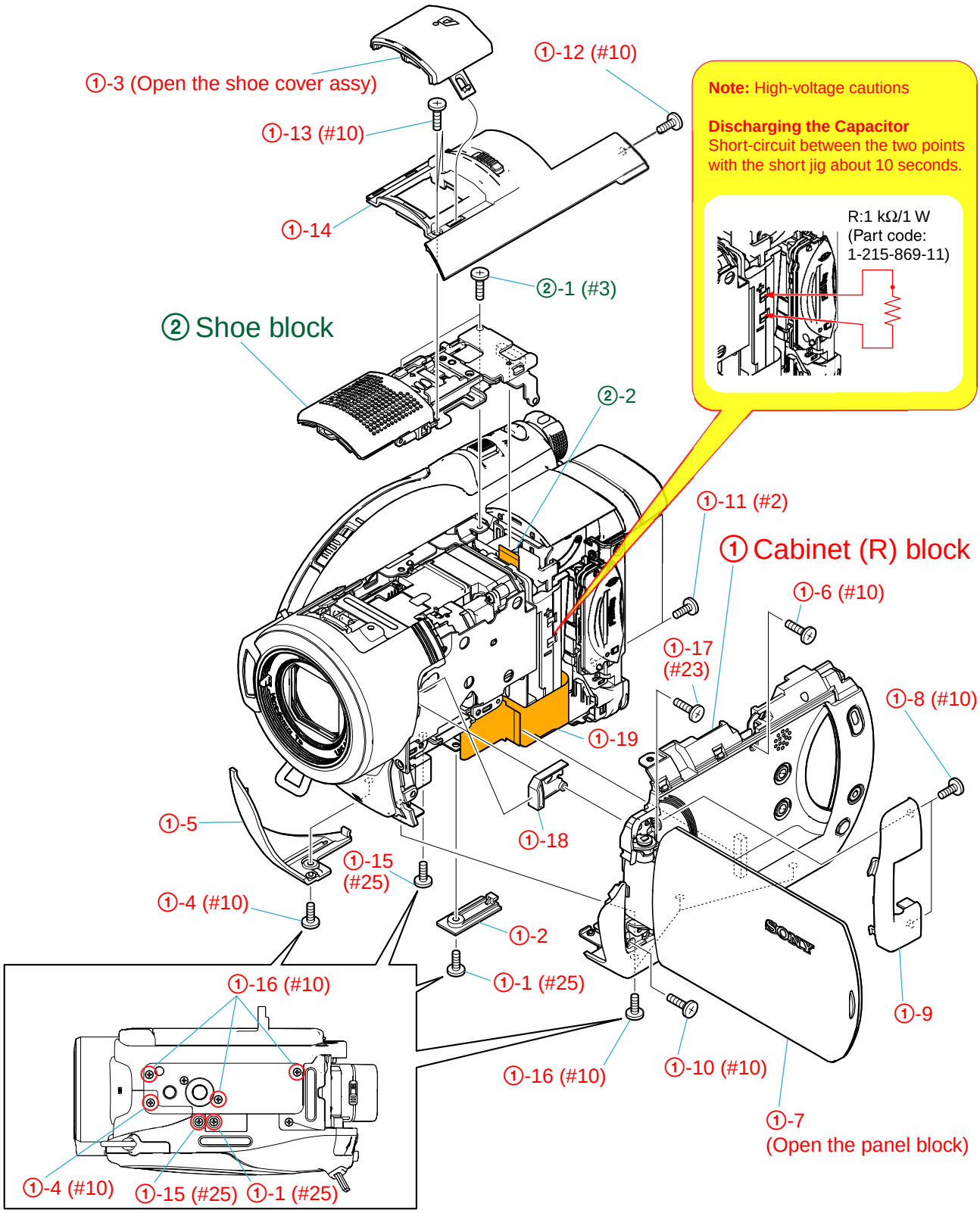
EXPLODED VIEW HARDWARE LIST

2-1-1. OVERALL ASSEMBLY-1

Follow the disassembly in the numerical order given.

① Cabinet (R) block (①-1 to ①-17)

② Shoe block (②-1 to ②-2)



2-1-2. OVERALL ASSEMBLY-2

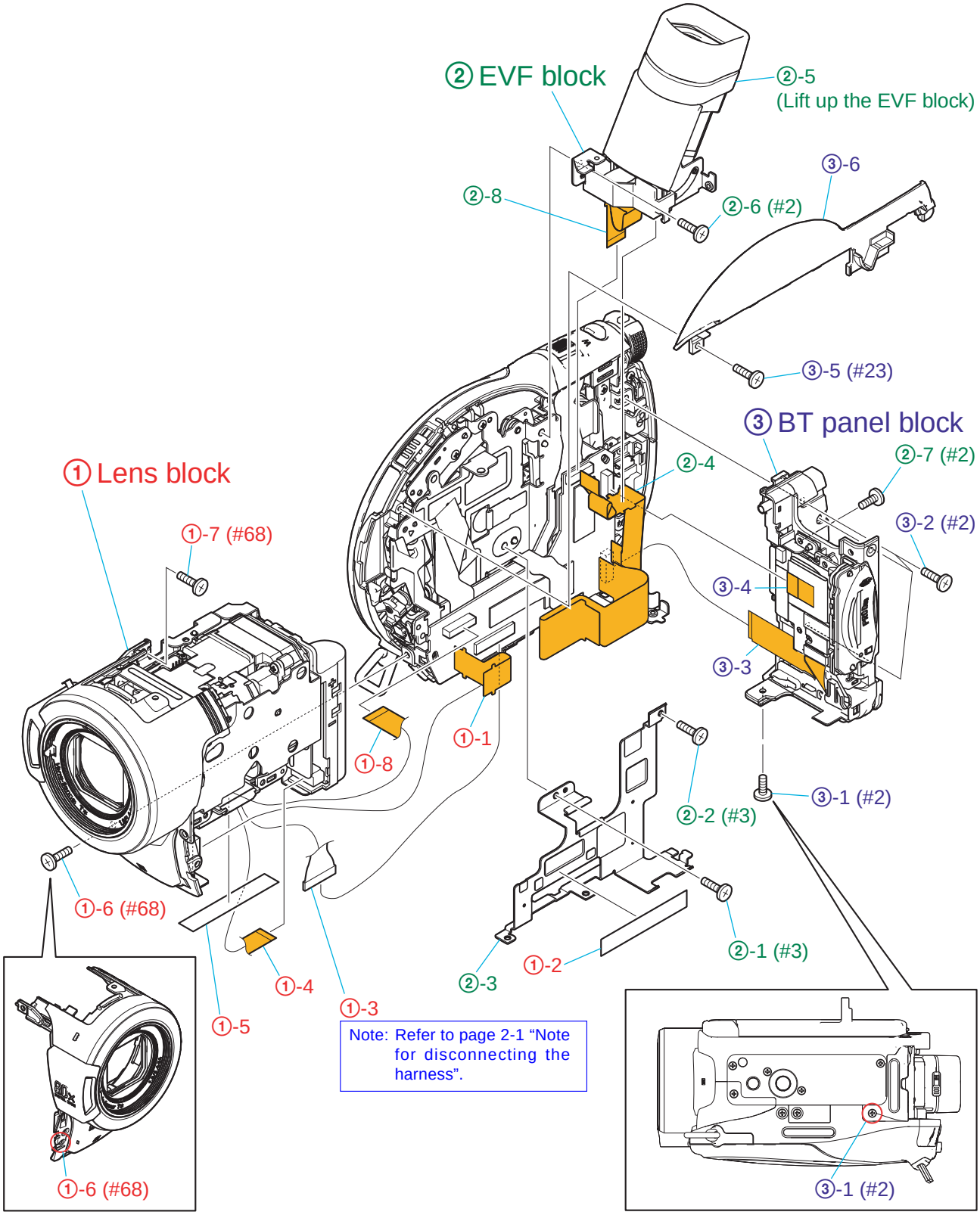
EXPLODED VIEW HARDWARE LIST

Follow the disassembly in the numerical order given.

① Lens block (①-1 to ①-8)

② EVF block (②-1 to ②-8)

③ BT panel block (③-1 to ③-6)

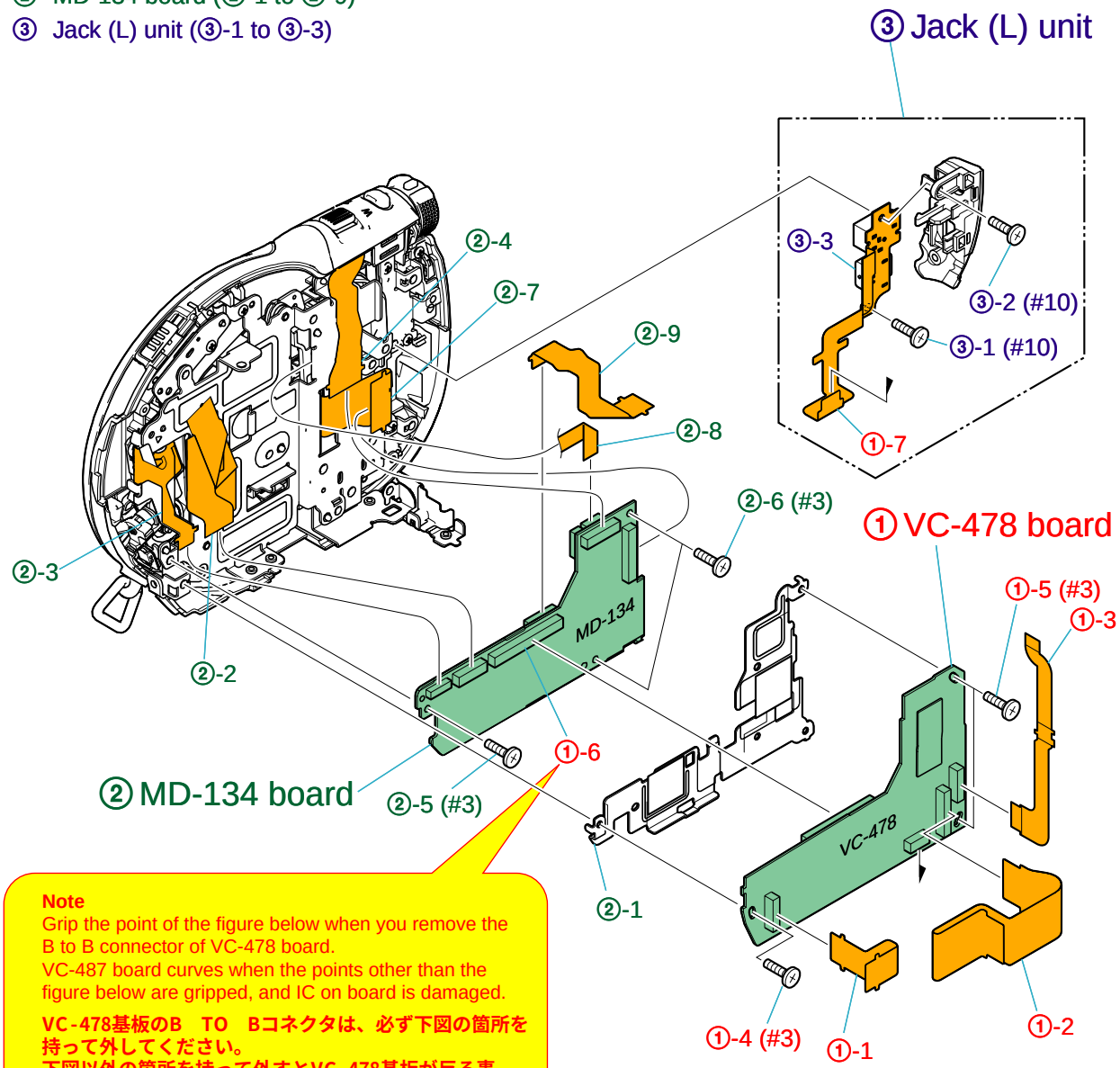


2-1-3. OVERALL ASSEMBLY-3

EXPLODED VIEW HARDWARE LIST

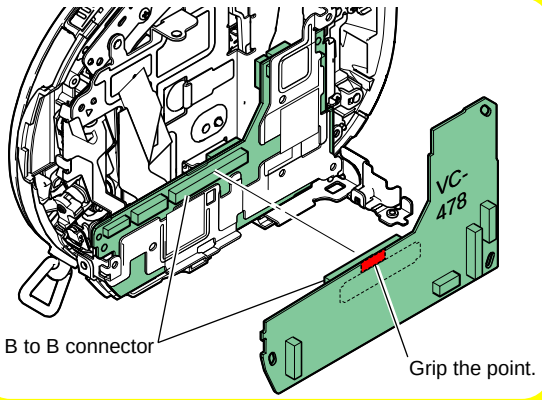
Follow the disassembly in the numerical order given.

① VC-478 board (①-1 to ①-7)
② MD-134 board (②-1 to ②-9)
③ Jack (L) unit (③-1 to ③-3)



Note
Grip the point of the figure below when you remove the B to B connector of VC-478 board.
VC-487 board curves when the points other than the figure below are gripped, and IC on board is damaged.

VC-478基板のB TO Bコネクタは、必ず下図の箇所を持って外してください。
下図以外の箇所を持って外すとVC-478基板が反る事により、基板上のICが破損します。

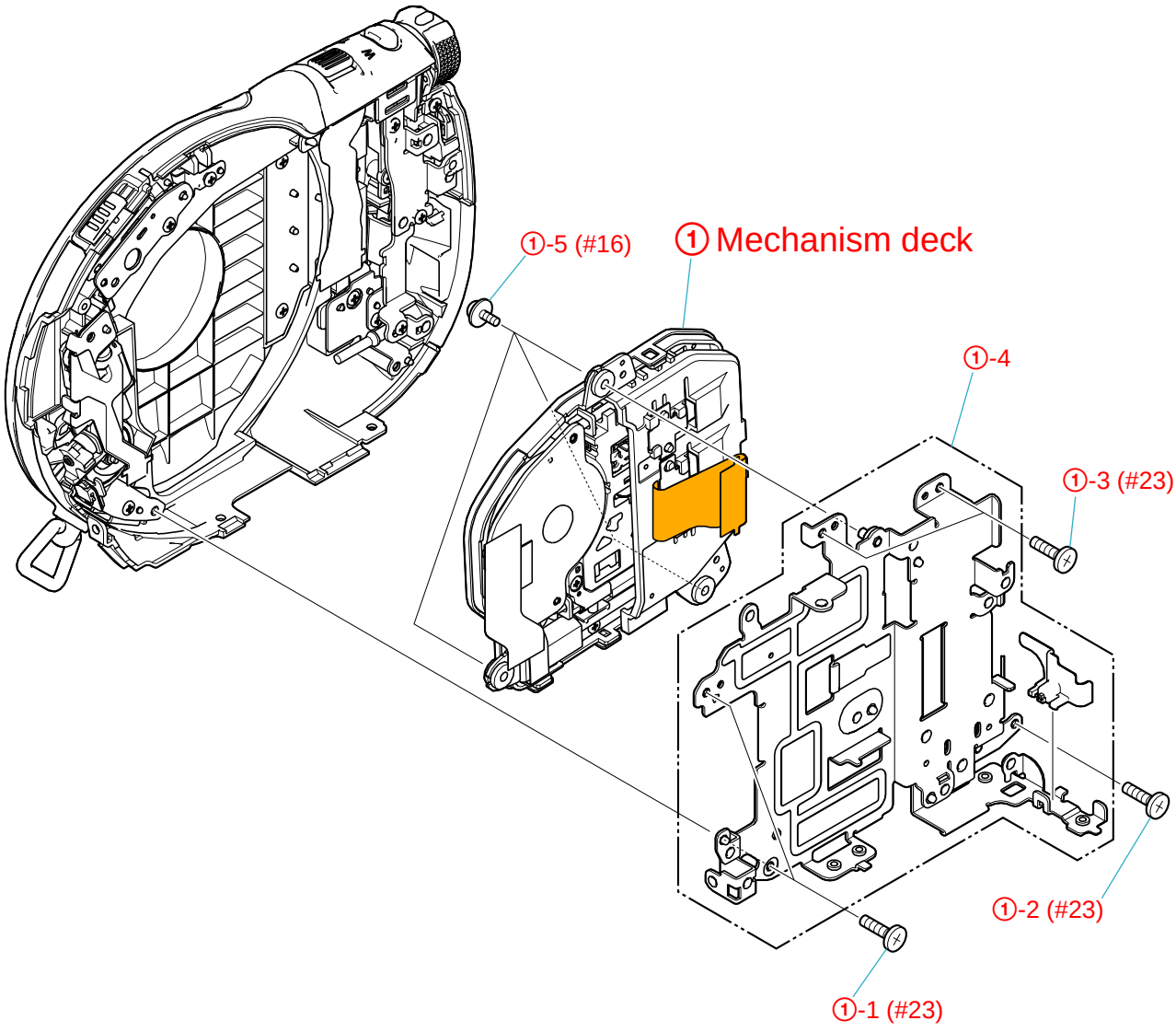


2-1-4. CABINET (L) BLOCK

Follow the disassembly in the numerical order given.

EXPLODED VIEW HARDWARE LIST

① Mechanism deck (①-1 to ①-5)

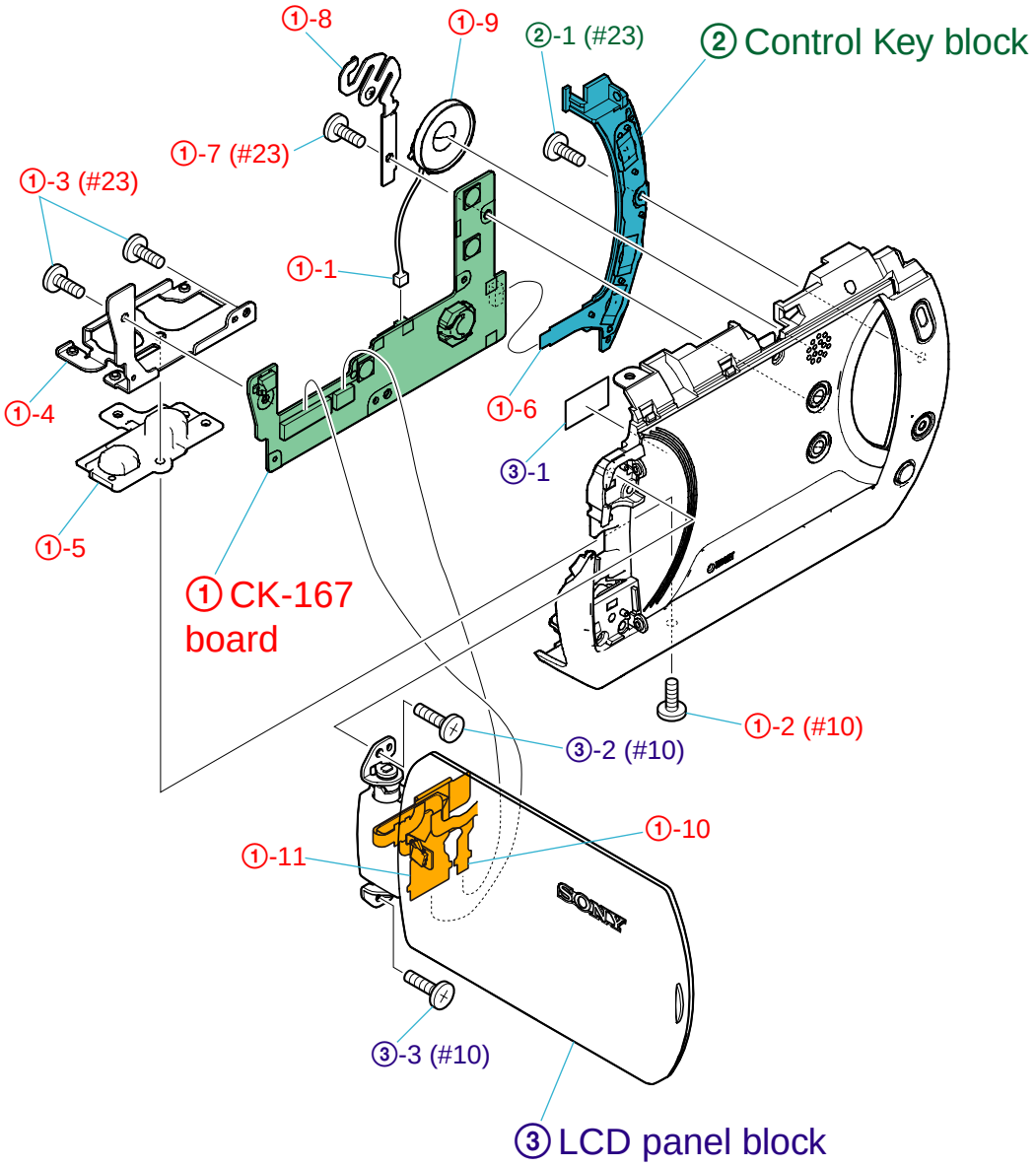


2-1-5. CABINET (R) BLOCK

Follow the disassembly in the numerical order given.

EXPLODED VIEW HARDWARE LIST

① CK-167 board (①-1 to ①-11)
② Control Key block (②-1)
③ LCD panel block (③-1 to ③-3)

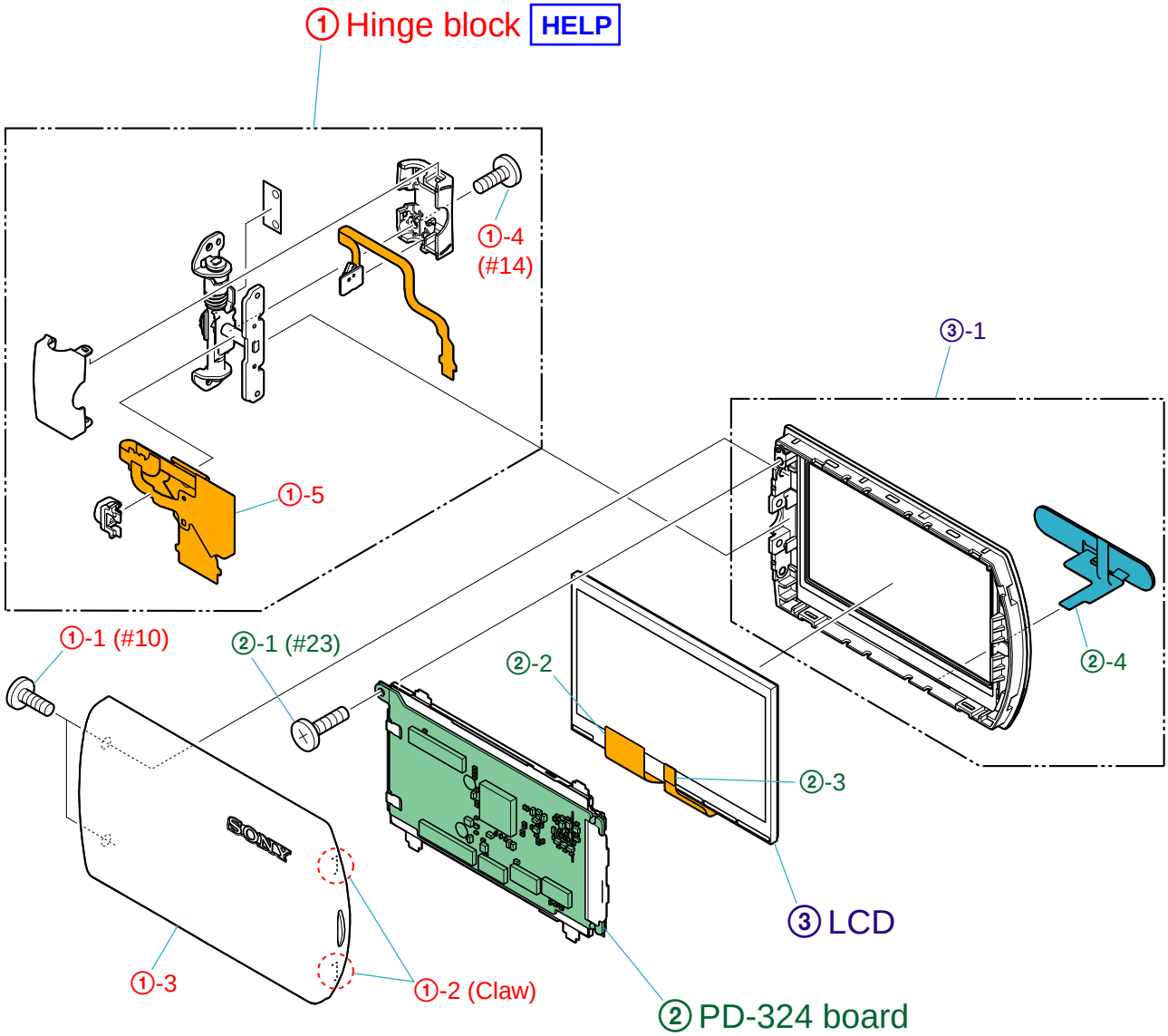


2-1-6. LCD PANEL BLOCK

Follow the disassembly in the numerical order given.

EXPLODED VIEW HARDWARE LIST

① Hinge block (①-1 to ①-5)
② PD-324 board (②-1 to ②-4)
③ LCD (③-1)

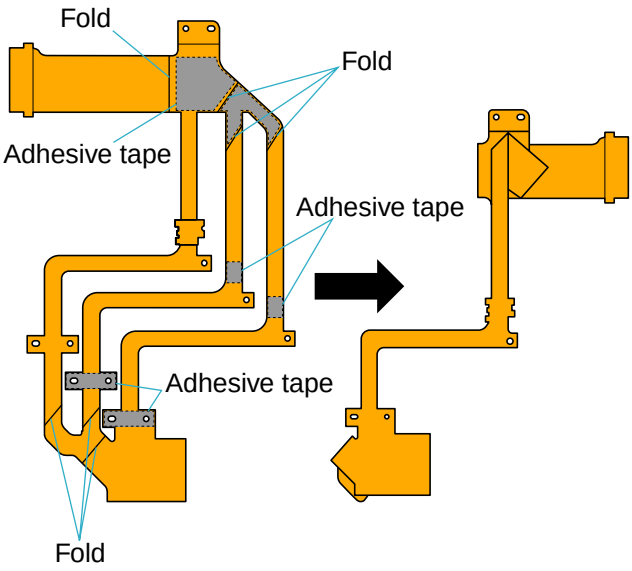


HELP

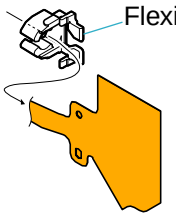
Sheet attachment positions and procedures of processing the flexible boards/harnesses are shown.

THE METHOD OF ATTACHMENT OF FP-537 FLEXIBLE BOARD

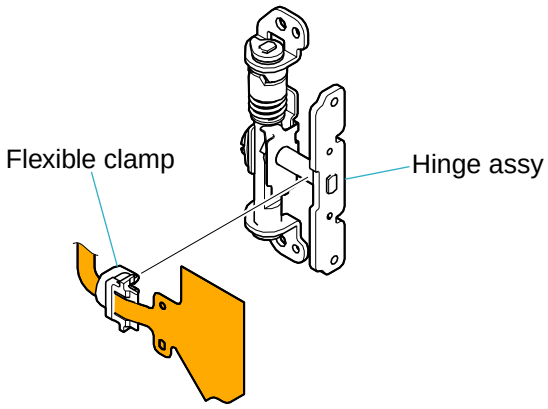
① Fold dotted line parts of the FP-537 flexible board as shown in figure.



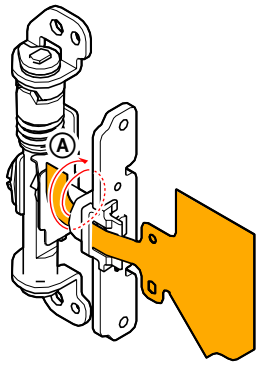
② Pass the FP-537 flexible board through the flexible clamp.



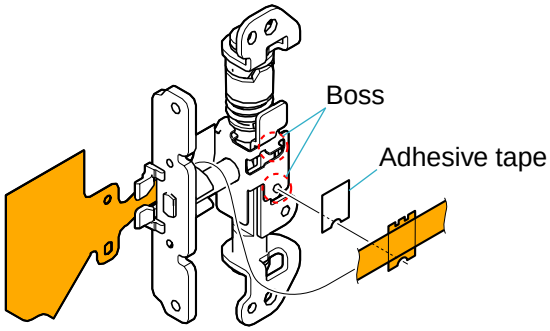
③ Install the flexible clamp in the hinge assy.



④ Roll the the FP-537 flexible board 1.5 times, in the direction of arrow Ⓐ.



⑤ Put the adhesive sheet and FP-537 flexible board on the hinge assy according to the position of the boss.



3. BLOCK DIAGRAMS

Link

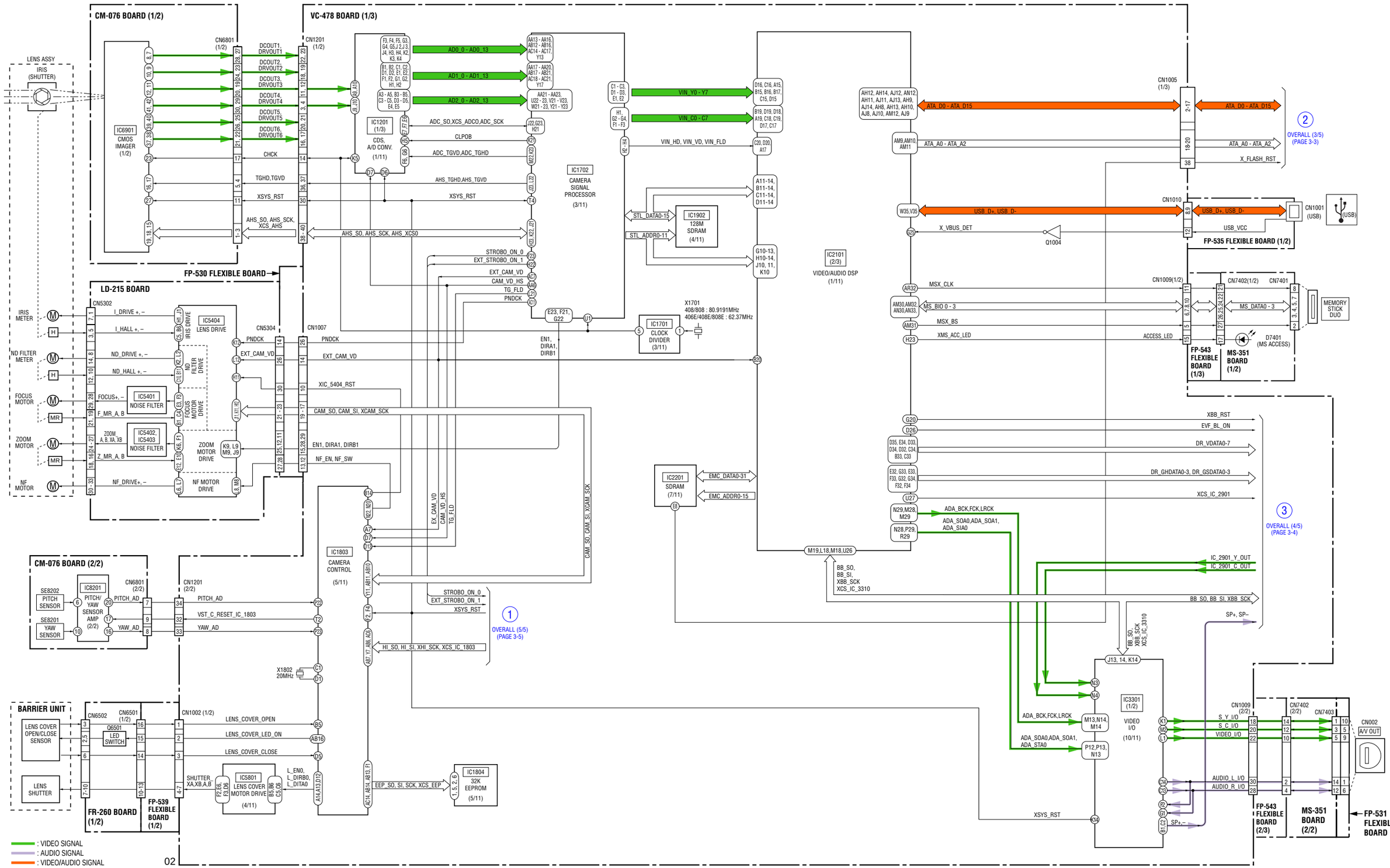
- OVERALL BLOCK DIAGRAM (1/4)
- OVERALL BLOCK DIAGRAM (2/4)
- OVERALL BLOCK DIAGRAM (3/4)
- OVERALL BLOCK DIAGRAM (4/4)
- POWER BLOCK DIAGRAM (1/3)
- POWER BLOCK DIAGRAM (2/3)
- POWER BLOCK DIAGRAM (3/3)

3. BLOCK DIAGRAMS

3-1. OVERALL BLOCK DIAGRAM (1/4)

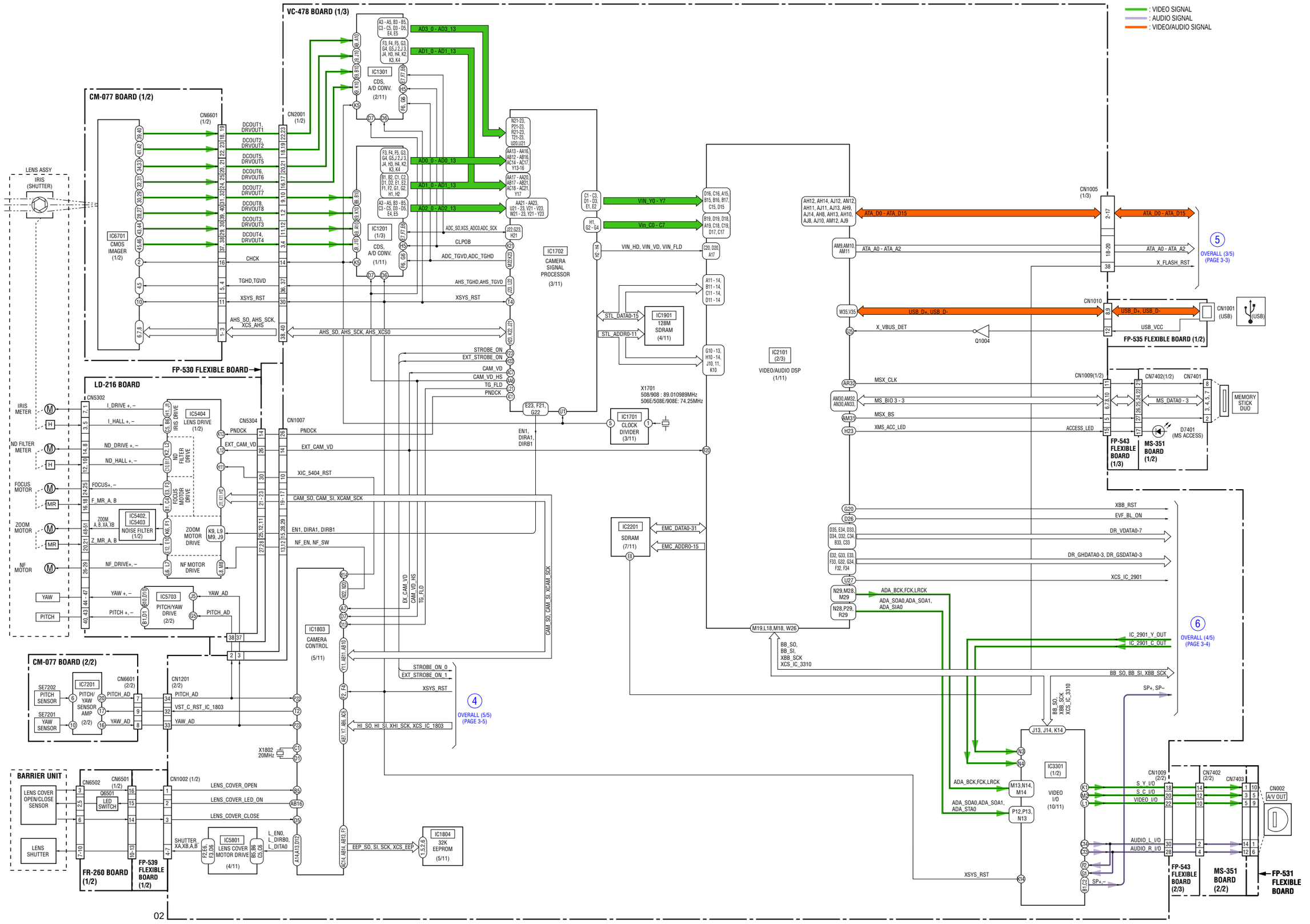
3-1-1. DCR-DVD406E/DVD408/DVD408E/DVD808/DVD808E

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



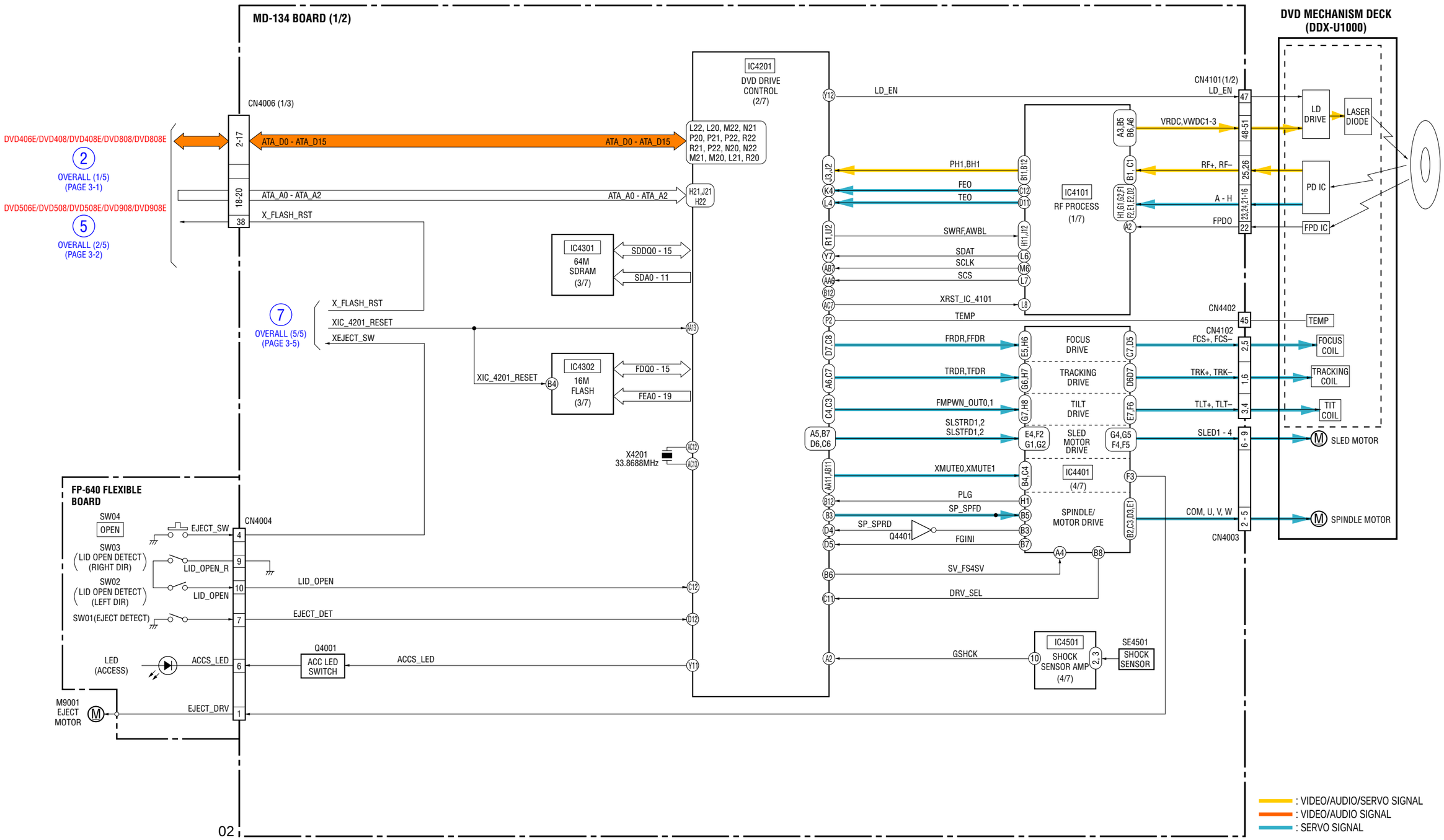
3-1-2. DCR-DVD506E/DVD508/DVD508E/DVD908/DVD908E

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.

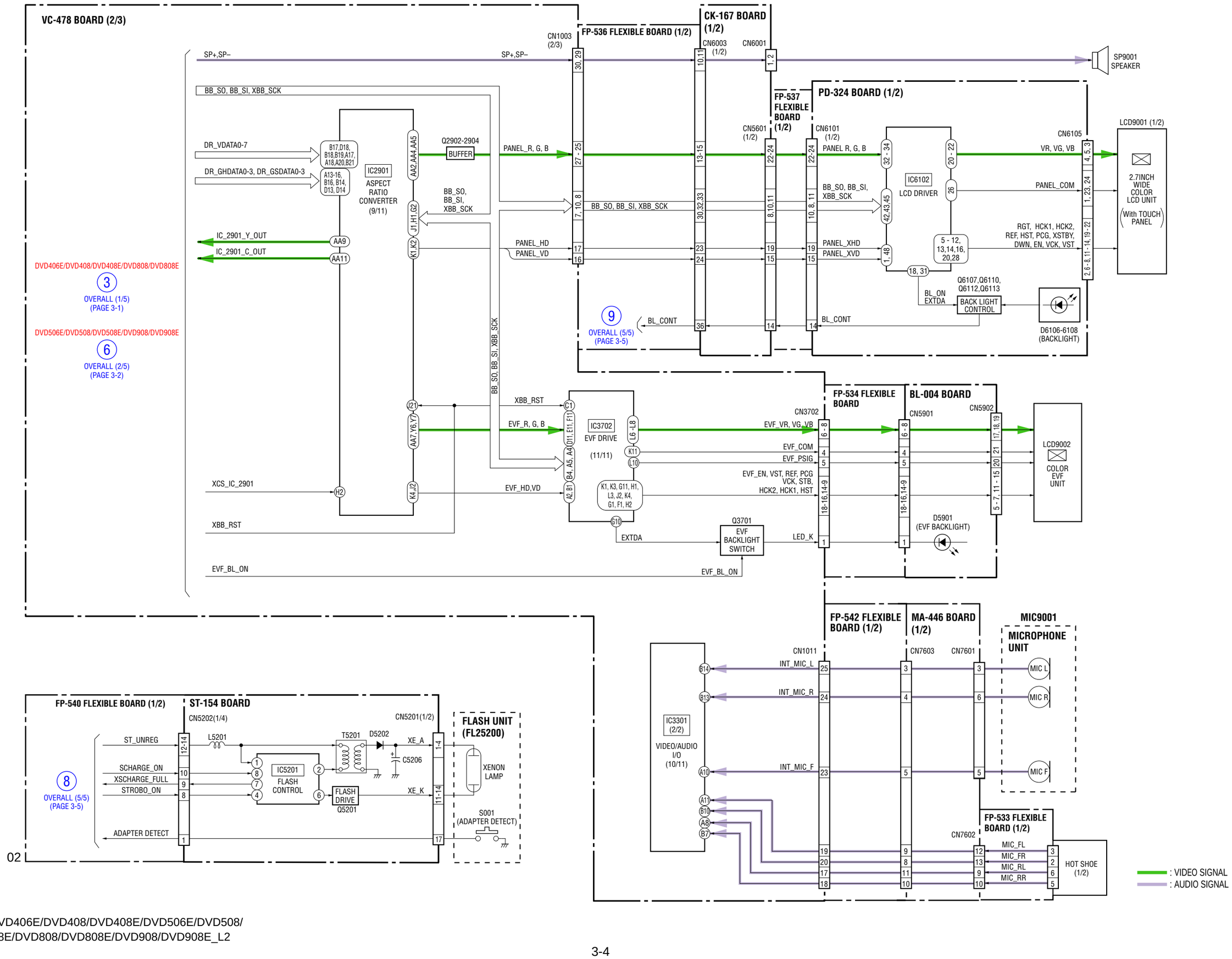


3-2. OVERALL BLOCK DIAGRAM (2/4)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.

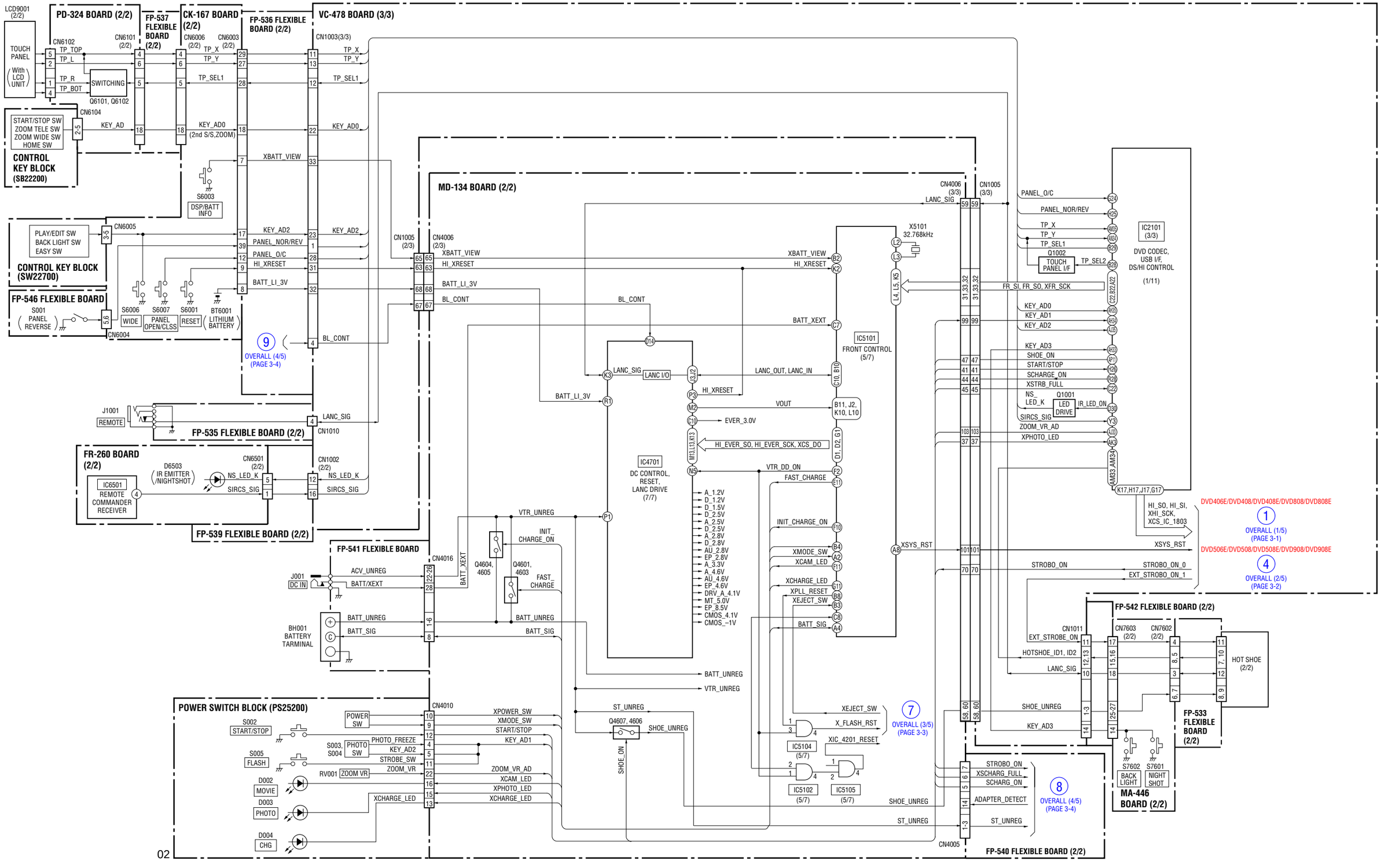


3-3. OVERALL BLOCK DIAGRAM (3/4) ( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



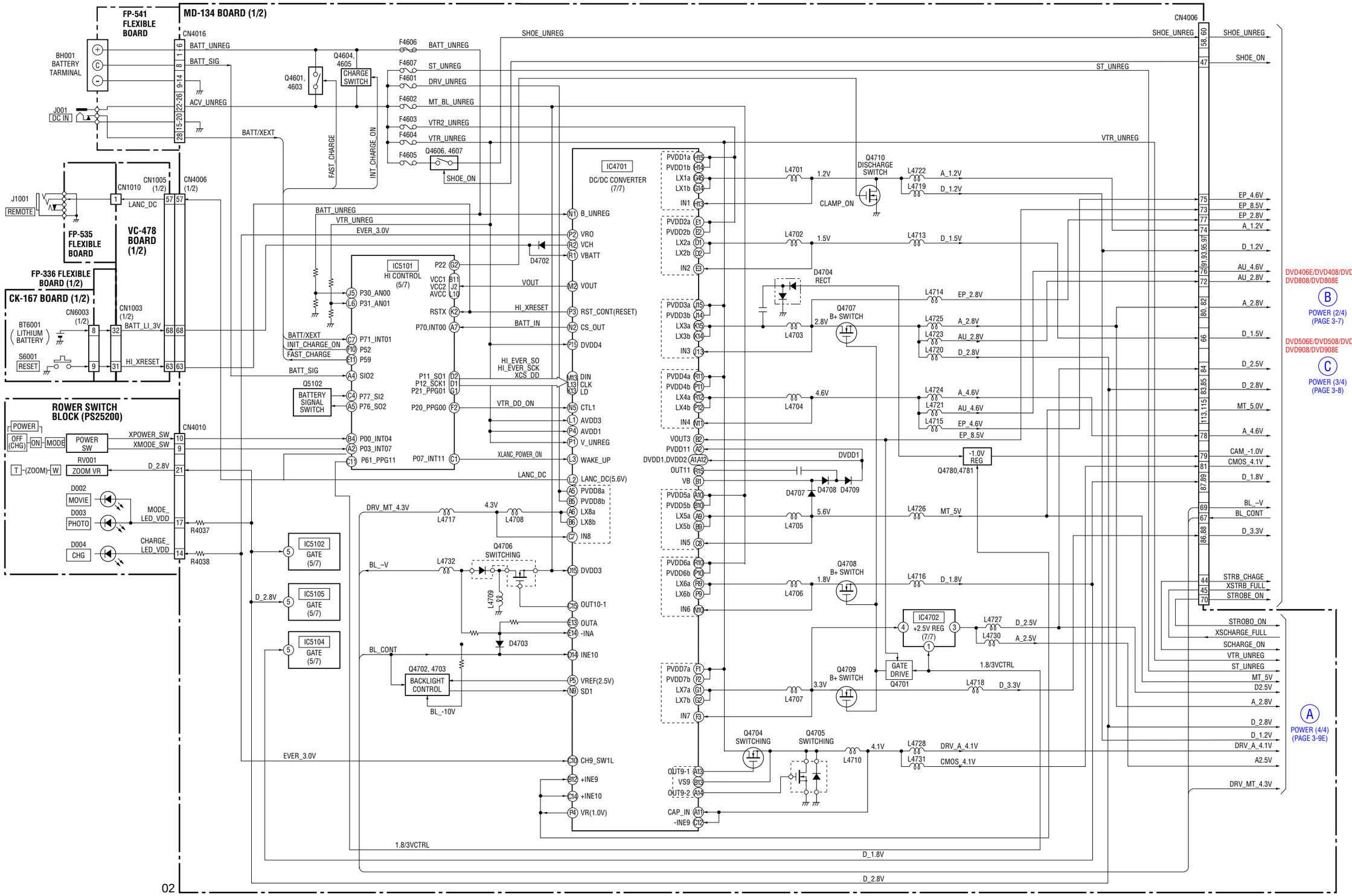
3-4. OVERALL BLOCK DIAGRAM (4/4)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



3-5. POWER BLOCK DIAGRAM (1/3)

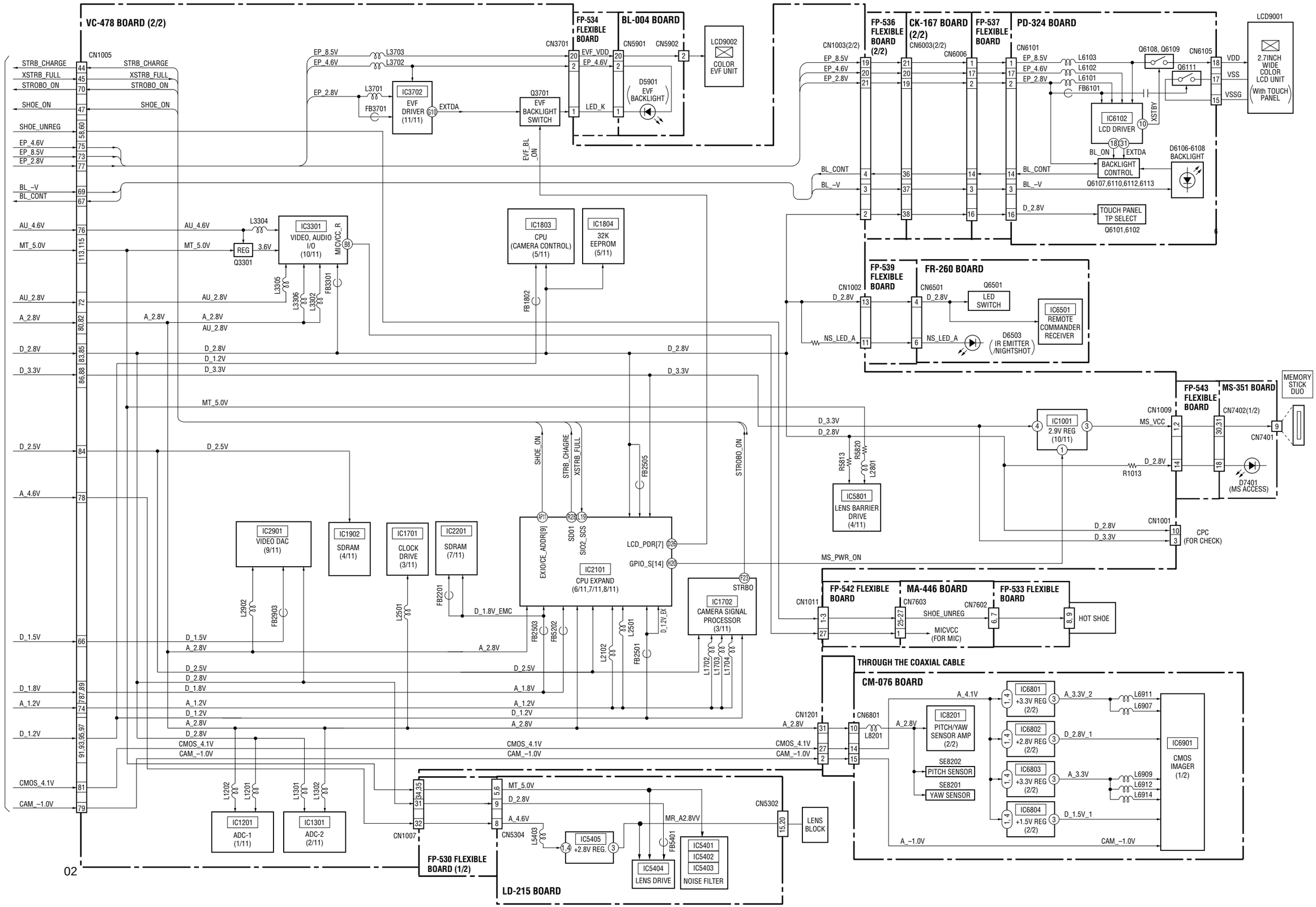
( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



3-6. POWER BLOCK DIAGRAM (2/3)

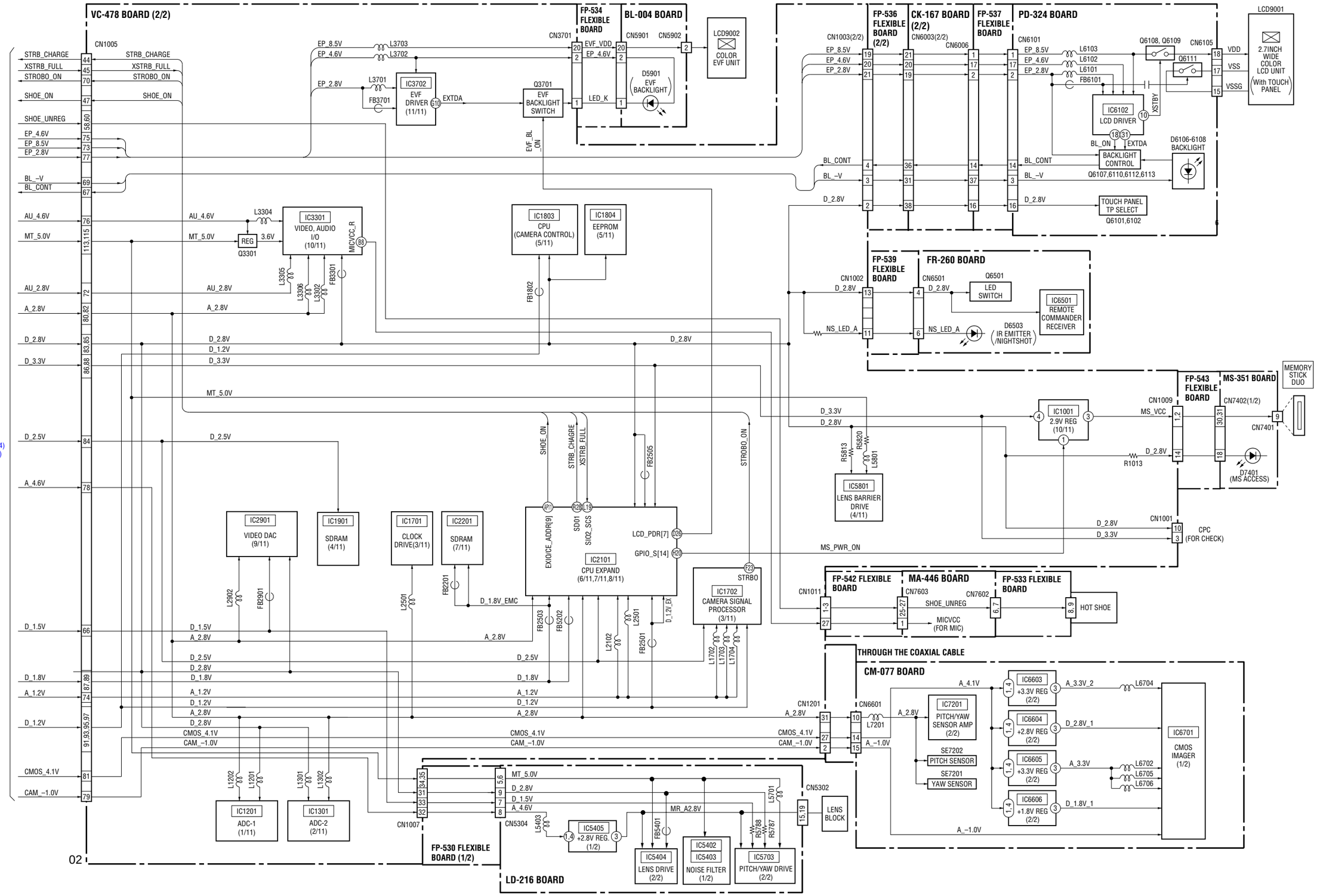
3-6-1. (DCR-DVD406E/DVD408/DVD408E/DVD808/DVD808E)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



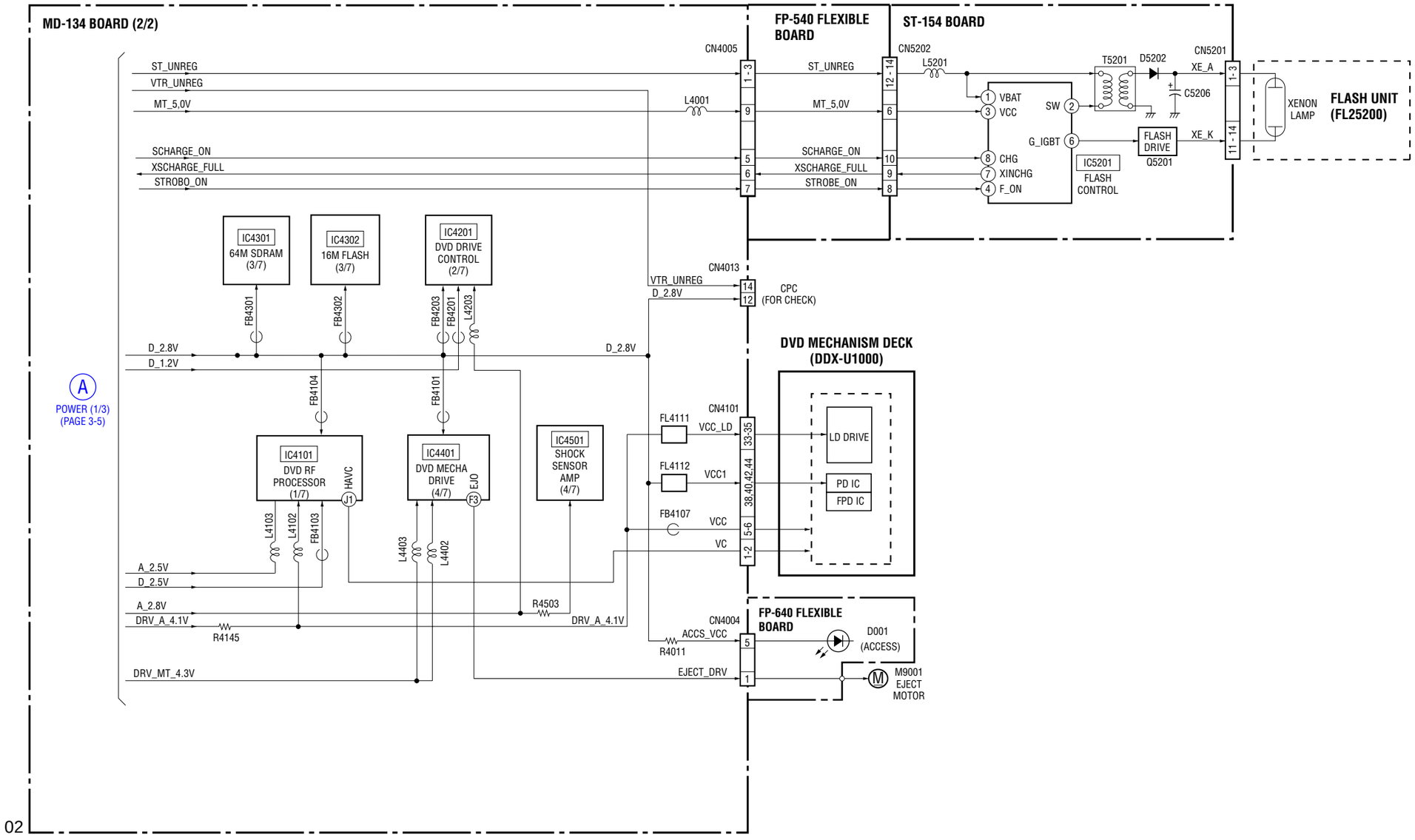
3-6-2. DCR-DVD506E/DVD508/DVD508E/DVD908/DVD908E

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



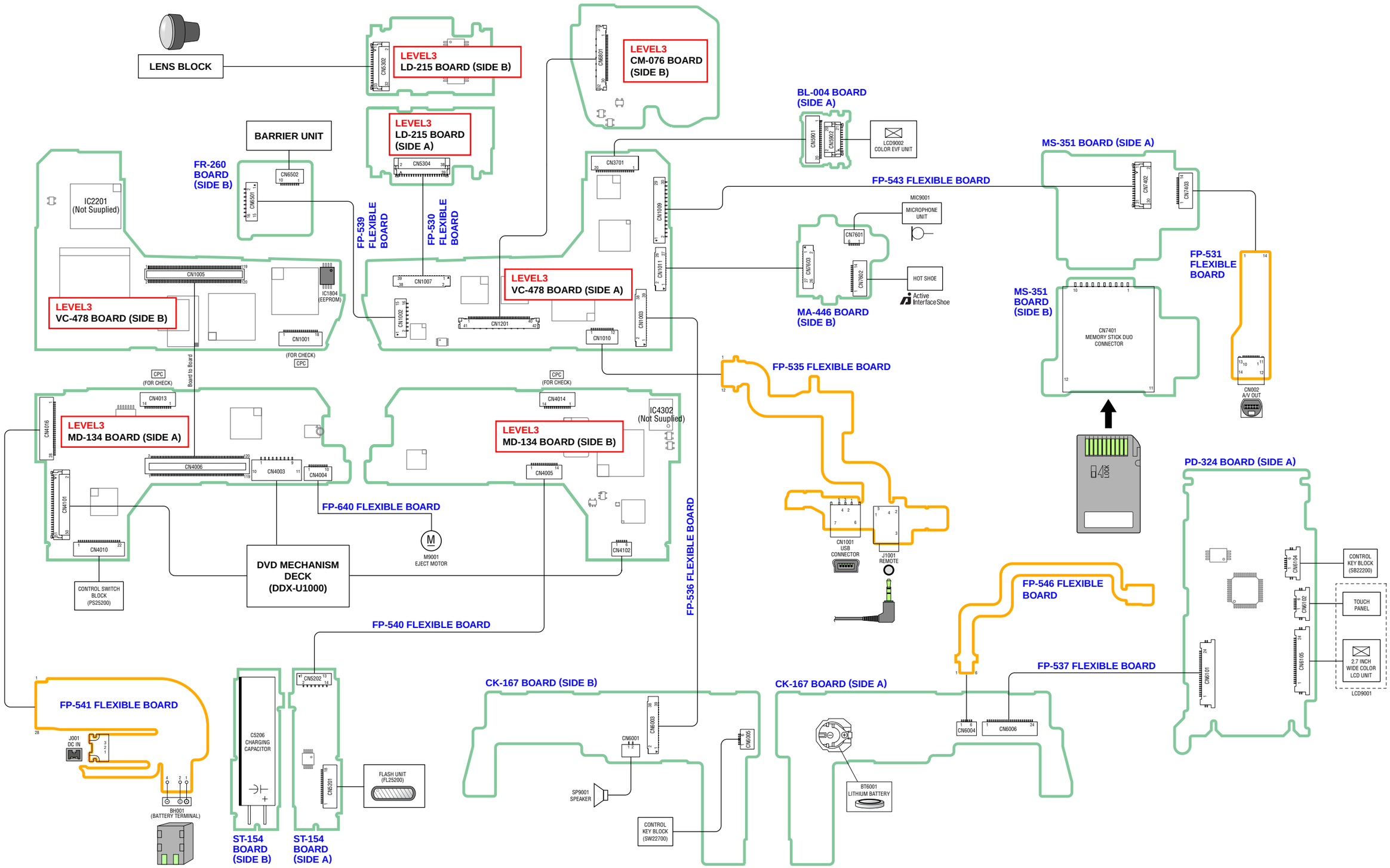
3-7. POWER BLOCK DIAGRAM (3/3)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.

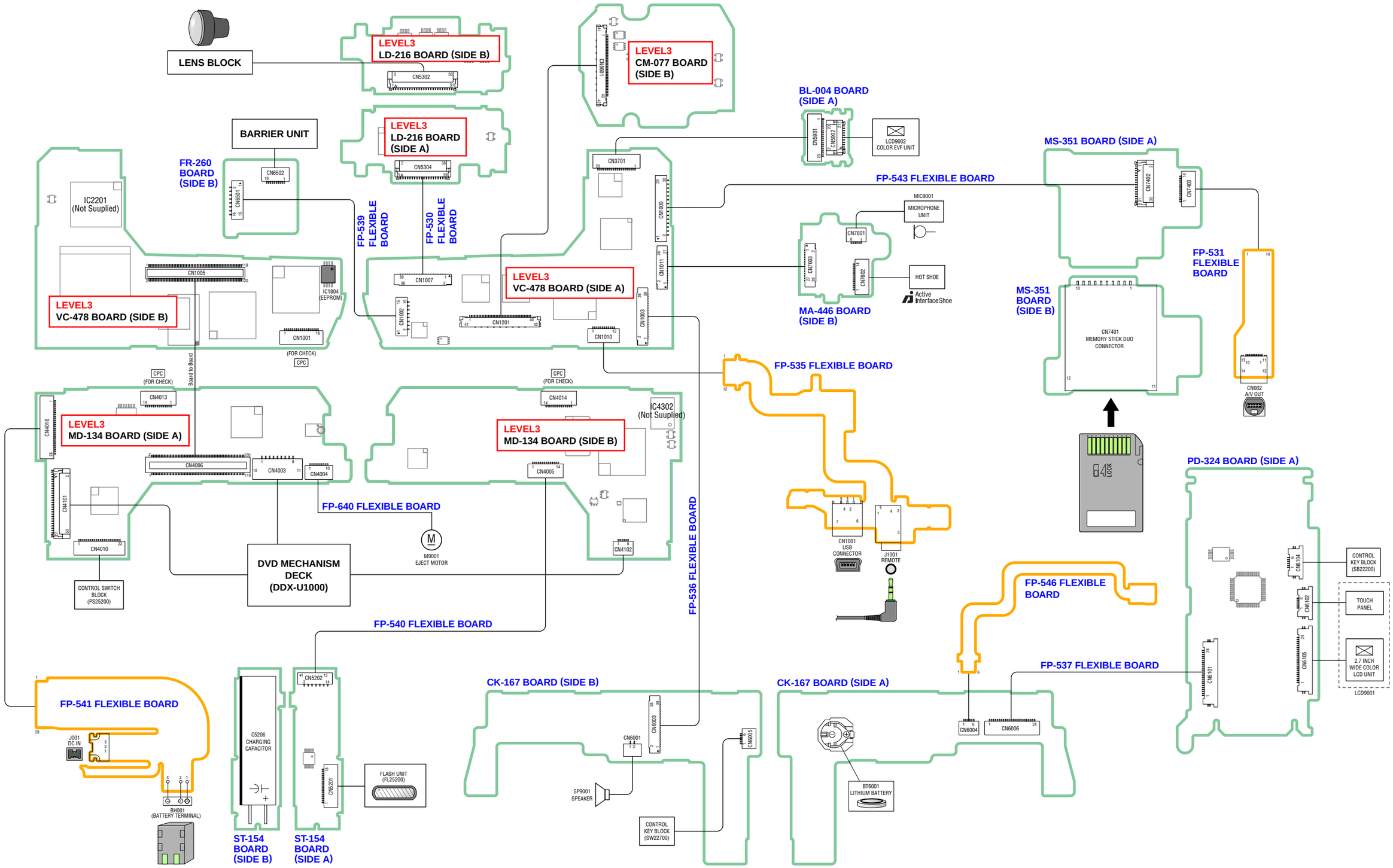


4-1. FRAME SCHEMATIC DIAGRAMS

4-1-1. DCR-DVD406E/DVD408/DVD408E/DVD808/DVD808E



4-1-2. DCR-DVD506E/DVD508/DVD508E/DVD908/DVD908E



4-2. SCHEMATIC DIAGRAMS

Link

PD-324 BOARD (LCD DRIVE)	FP-537 FLEXIBLE BOARD (CK-PD CONNECTION)
CONTROL KEY BLOCK (SB22200)	FP-539 FLEXIBLE BOARD (FR-VC CONNECTION)
CK-167 BOARD (LITHIUM BATTERY, SPEAKER)	FP-540 FLEXIBLE BOARD (ST-MD CONNECTION)
FP-536 FLEXIBLE BOARD	FP-541 FLEXIBLE BOARD (DC IN, BATTERY TERMINAL)
CONTROL KEY BLOCK (SW25200)	FP-543 FLEXIBLE BOARD (MS-VC CONNECTION)
ST-154 BOARD (FLASH DRIVE)	FP-546 FLEXIBLE BOARD (PANEL REVERSE DETECT SWITCH)
FLASH UNIT (FL25200)	FP-640 FLEXIBLE BOARD (EJECT SWITCH/MOTOR)
MS-351 BOARD (MS CONNECTOR)	FP-712 FLEXIBLE BOARD (LENS BARRIER)
FP-531 FLEXIBLE BOARD (AV MULTI)	FR-260 BOARD (REMOTE COMMANDER RECEIVER)
BL-004 BOARD (EVF, EVF BACKLIGHT)	CONTROL SWITCH BLOCK (PS25200)
FP-534 FLEXIBLE BOARD (VC-BL CONNECTION)	MA-446 BOARD (MIC AMP)
FP-530 FLEXIBLE BOARD (LD-VC CONNECTION)	FP-533 FLEXIBLE BOARD (HOT SHOE)
FP-535 FLEXIBLE BOARD (USB CONNECTOR)	FP-542 FLEXIBLE BOARD (MA-VC CONNECTION)

COMMON NOTE FOR SCHEMATIC DIAGRAMS

4-2. SCHEMATIC DIAGRAMS (ENGLISH)

THIS NOTE IS COMMON FOR SCHEMATIC DIAGRAMS
(In addition to this, the necessary note is printed in each block)

(For schematic diagrams)

- All capacitors are in μF unless otherwise noted. pF : μμF. 50 V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10 W unless otherwise noted. kΩ=1000 Ω, MΩ=1000 kΩ.
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.

  Example C541 22U TA A — Kinds of capacitor / Case size
  L452 10UH 2520 — External dimensions (mm)
- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used.
  In such cases, the unused circuits may be indicated.
- Parts with ★ differ according to the model/destination.
  Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name
  XEDIT → $\overline{\text{EDIT}}$ PB/XREC → PB/$\overline{\text{REC}}$
- : non flammable resistor
- : fusible resistor
- : panel designation
- : B+ Line
- : B– Line
- : IN/OUT direction of (+,–) B LINE.
- : adjustment for repair.
- : not use circuit

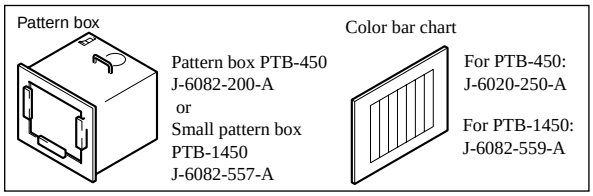
(Measuring conditions voltage and waveform)

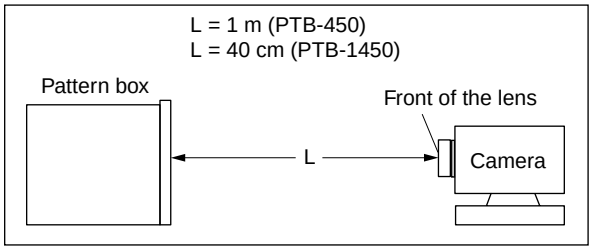
- Voltages and waveforms are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values and reference waveforms.
  (VOM of DC 10 MΩ input impedance is used)
- Voltage values change depending upon input impedance of VOM used.)

Precautions for Replacement of Imager

- If the imager has been replaced, carry out all the adjustments for the camera section.
- As the imager may be damaged by static electricity from its structure, handle it carefully like for the MOS IC.
  In addition, ensure that the receiver is not covered with dusts nor exposed to strong light.

1. Connection





2. Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

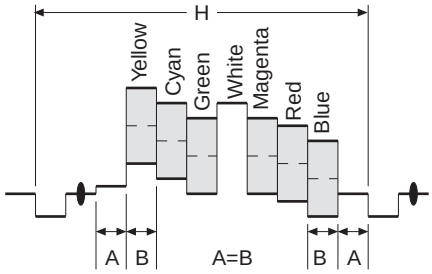


Fig. a (Video output terminal output waveform)

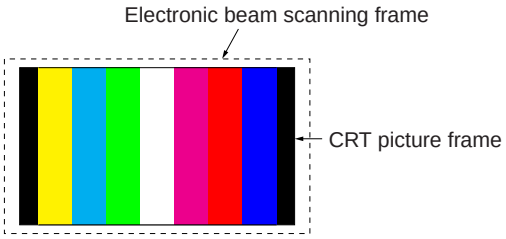


Fig.b (Picture on monitor TV)

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifie.

(JAPANESE)

回路図共通ノート
（他に必要なノートは各ブロックに記載してあります）
【回路図ノート】
・ケミコン，タンタルを除くコンデンサで，耐圧50V以下のものはその耐圧を省略。単位はすべてμF（pはpF）。
・チップ抵抗で指示のないものは，1／10W以下。
kΩ＝1000Ω，MΩ＝1000kΩ
・チップ部品交換時の注意
取り外した部品は再使用せず，未使用の部品をご使用ください。
タンタルコンデンサのマイナス側は熱に弱いため注意してください。
・チップ部品には下記のように表示したものがあります。

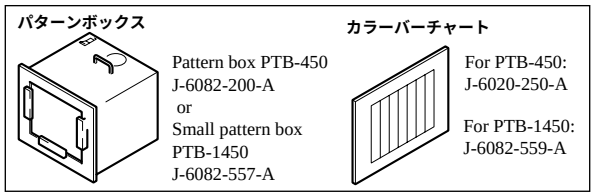
例	C 541	L 452
	22U	10UH
	TA A	2520
	↑ ↑	↑
	種類 ケースサイズ	外形寸法（mm）

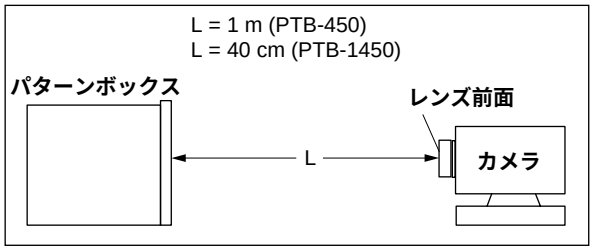
・抵抗，コンデンサ，ICなど定数にXXがあるものは，使用していない事を示しています。このため，使用していない回路が記載されている事があります。
・★印のある部品は，機種などにより異なりますので機能別マウント一覧表を参照してください。
・可変抵抗と半固定抵抗で，B特性の表示を省略。
・信号名表記について，下記のような場合があります。
XEDIT → $\overline{\text{EDIT}}$ PB/XREC → PB/$\overline{\text{REC}}$
・ は不燃性抵抗。
・ はヒューズ抵抗。
・ はパネル表示名称。
・ はB＋ライン。
・ はB－ライン。
・ はBライン（＋，－）の入出力方向を示す。
・ は調整名称。
・ は未使用回路。

【電圧・波形測定条件ノート】
・電圧値及び信号波形はパターンボックスのカラーバーチャートを被写体としたときの測定点対アース間の参考値。
（デジタルマルチメータ；入力インピーダンス DC10MΩ使用）
・使用テスタの入力インピーダンスにより電圧値が多少異なります。

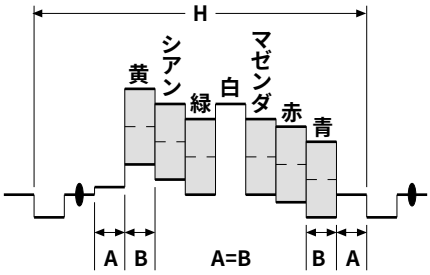
イメージャ交換時の注意
・イメージャを交換した場合は，カメラ部の全調整を行ってください。
・イメージャは構造上，静電気により破壊される恐れがあるため，MOS ICと同様に注意して取り扱ってください。
また，受光部にはゴミの付着，および強い光がはいることのないように注意してください。

1. 接続図

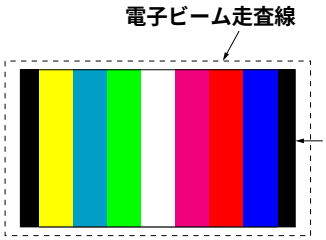




2. 図a及び図bの波形が得られるように画枠調整して下さい。



図a（映像入出力端子出力波形）



図b（テレビモニタの映像）

⚠印の部品，または⚠印付きの点線で囲まれた部品は，安全性を維持するために重要な部品です。
従って交換時は，必ず指定の部品を使用して下さい。

お願い
図面番号で部品を指定するときは基板名又はブロックを併せて指定して下さい。

Schematic diagrams of the CM-076, CM-077, LD-215, LD-216, VC-478 and MD-134 boards are not shown. Pages from 4-6 to 4-30 are not shown.

PD-324 BOARD

LCD DRIVE

XX MARK:NO MOUNT

NO MARK:REC/PB MODE

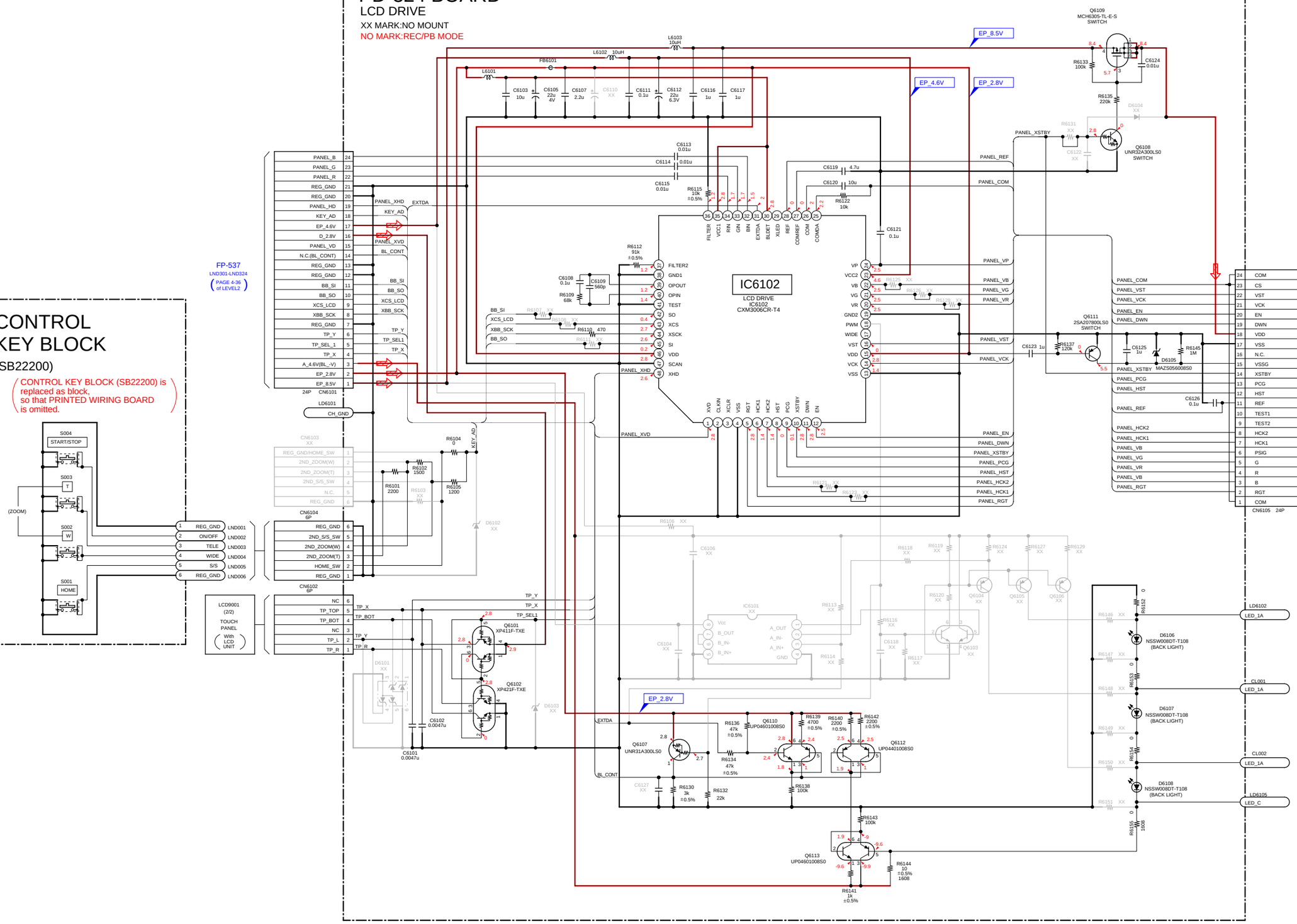
CONTROL KEY BLOCK

(SB22200)

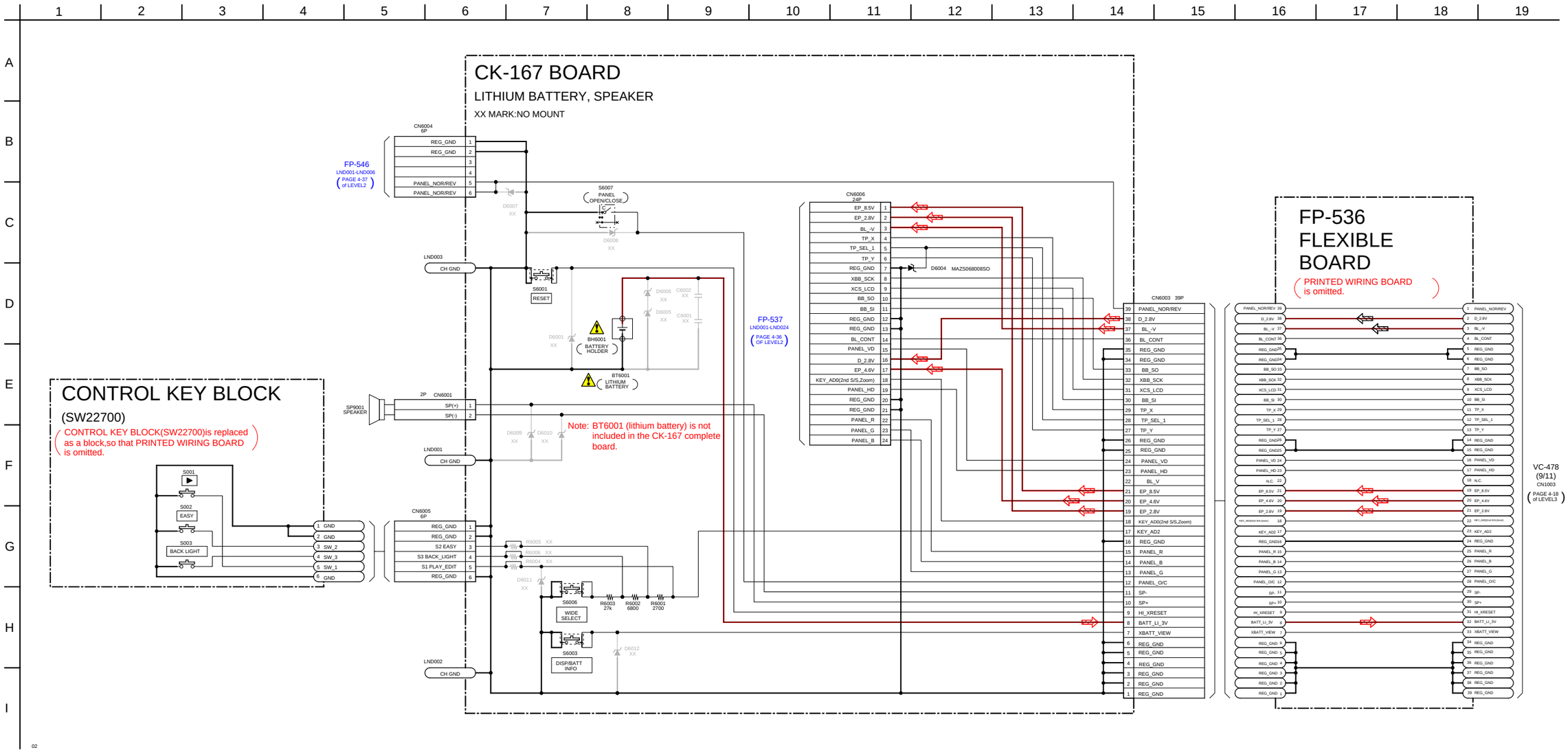
CONTROL KEY BLOCK (SB22200) is replaced as block, so that PRINTED WIRING BOARD is omitted.

FP-537
LND301-LND324
(PAGE 4-36 of LEVEL2)

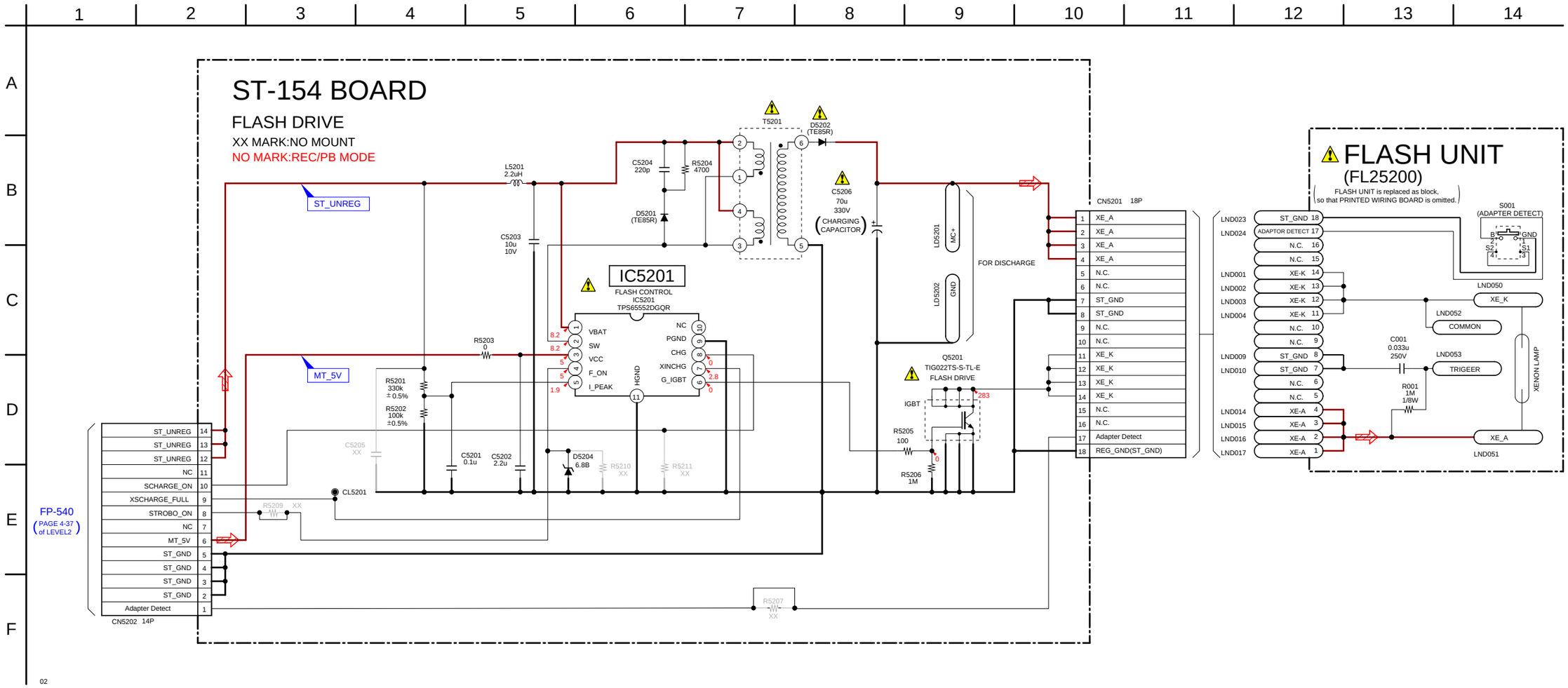
IC6102
LCD DRIVE
IC6102
CXM3006CR-T4


EP_8.5V
EP_4.6V
EP_2.8V
EP_2.8V
PANEL_XSTBY
PANEL_REF
PANEL_COM
PANEL_VP
PANEL_VB
PANEL_VG
PANEL_VR
PANEL_VST
PANEL_VCK
PANEL_EN
PANEL_DWN
PANEL_XSTBY
PANEL_PCG
PANEL_HST
PANEL_HCK2
PANEL_HCK1
PANEL_VB
PANEL_VG
PANEL_VR
PANEL_VB
PANEL_RGT
PANEL_XVD
EXTDA
BL_CONT
KEY_AD
CN6101 24P
CN6102 6P
CN6103 XX
CN6104 6P
CN6105 24P
LD6101
CH_GND
LCD9001 (1/2) 2.7INCH WIDE COLOR LCD UNIT
With TOUCH PANEL
LCD9001 (2/2) TOUCH PANEL
With LCD UNIT
S004 START/STOP
S003 T
S002 W
S001 HOME
(ZOOM)
LND001
LND002
LND003
LND004
LND005
LND006
Q6109 MCH6305-TL-E-S SWITCH
Q6108 UNR22A300LS0 SWITCH
Q6111 2SA2078O0LS0 SWITCH
Q6101 XP411F-TXE
Q6102 XP421F-TXE
Q6107 UNR31A300LS0
Q6110 UP04601008S0
Q6112 UP04401008S0
Q6113 UP04601008S0
IC6101
D6101
D6102
D6103
D6104
D6105 MAZS056008S0
D6106 NSSW008DT-T108 (BACK LIGHT)
D6107 NSSW008DT-T108 (BACK LIGHT)
D6108 NSSW008DT-T108 (BACK LIGHT)
LD6102 LED_1A
CL001 LED_1A
CL002 LED_1A
LD6105 LED_C
L6101 L6102 10uH L6103 10uH FB6101
C6101 0.0047u C6102 0.0047u C6103 10u C6104 XX C6105 22u 4V C6106 XX C6107 2.2u C6108 0.1u C6109 560p C6110 XX C6111 0.1u C6112 22u 6.3V C6113 0.01u C6114 0.01u C6115 0.01u C6116 1u C6117 1u C6118 XX C6119 4.7u C6120 10u C6121 0.1u C6122 XX C6123 1u C6124 0.01u C6125 1u C6126 0.1u C6127 XX
R6101 2200 R6102 1500 R6103 XX R6104 0 R6105 1200 R6106 XX R6107 XX R6108 XX R6109 68k R6110 470 R6111 XX R6112 91k ±0.5% R6113 XX R6114 XX R6115 10k ±0.5% R6116 XX R6117 XX R6118 XX R6119 XX R6120 XX R6122 10k R6124 XX R6125 XX R6126 XX R6127 XX R6128 XX R6129 XX R6130 3k ±0.5% R6131 XX R6132 22k R6133 100k R6134 47k ±0.5% R6135 220k R6136 47k ±0.5% R6137 120k R6138 100k R6139 4700 ±0.5% R6140 2200 ±0.5% R6141 1k ±0.5% R6142 2200 ±0.5% R6143 100k R6144 10 ±0.5% 1608 R6145 1M R6146 XX R6147 XX R6148 XX R6149 XX R6150 XX R6151 XX R6152 0 R6153 0 R6154 0 R6155 0 1608
FILTER VCC1 RIN GIN BIN EXTDA BLDET XLED REF COMREF COM COMDA
FILTER2 GND1 OPOUT OPIN TEST SO XCS XSCK SI VDD SCAN XHD
VP VCC2 VB VG VR GND2 PWM WIDE VST VDD VCK VSS
XVD CLKIN XCLR VSS RGT HCK1 HCK2 HST PCG XSTBY DWN EN
COM CS VST VCK EN DWN VDD VSS N.C. VSSG XSTBY PCG HST REF TEST1 TEST2 HCK2 HCK1 VB PSIG G R B RGT COM
REG_GND 24 PANEL_B 23 PANEL_G 22 PANEL_R 21 REG_GND 20 REG_GND 19 PANEL_HD 18 KEY_AD 17 EP_4.6V 16 D_2.8V 15 PANEL_VD 14 N.C.(BL_CONT) 13 REG_GND 12 REG_GND 11 BB_SI 10 BB_SO 9 XCS_LCD 8 XBB_SCK 7 REG_GND 6 TP_Y 5 TP_SEL_1 4 TP_X 3 A_4.6V(BL_-V) 2 EP_2.8V 1 EP_8.5V
REG_GND/HOME_SW 2ND_ZOOM(W) 2ND_ZOOM(T) 2ND_S/S_SW N.C. REG_GND
REG_GND 6 2ND_S/S_SW 5 2ND_ZOOM(W) 4 2ND_ZOOM(T) 3 HOME_SW 2 REG_GND 1
NC 6 TP_TOP 5 TP_BOT 4 NC 3 TP_L 2 TP_R 1
REG_GND 1 ON/OFF 2 TELE 3 WIDE 4 S/S 5 REG_GND 6
BB_SI XCS_LCD XBB_SCK BB_SO
PANEL_XHD KEY_AD PANEL_XVD BL_CONT BB_SI BB_SO XCS_LCD XBB_SCK TP_Y TP_SEL1 TP_X
TP_Y TP_X TP_BOT TP_Y TP_R TP_X TP_SEL1
EP_2.8V

• Refer to page 4-4 (English), 4-5 (Japanese) for mark ⚠.



• Refer to page 4-4 (English), 4-5 (Japanese) for mark ⚠.



MS-351 BOARD

MS CONNECTOR

XX MARK:NO MOUNT

MS_VCC(REG2.9V)	31	
MS_VCC(REG2.9V)	30	
REG_GND	29	
REG_GND	28	
MS_BS	27	
MSDATA1	26	
MS_DIO	25	
MSDATA2	24	
XMS_IN	23	
MSDATA3	22	
MS_SCLK	21	
REG_GND	20	
REG_GND	19	
D_2.8V	18	
ACCCESS_LED	17	
REG_GND_AV	16	
REG_GND_AV	15	
S_Y_I/O	14	
REG_GND_AV	13	
S_C_I/O	12	
REG_GND_AV	11	
VIDEO_I/O	10	
REG_GND_AV	9	
LANC_DC	8	
MULTI_JACK_IN	7	
LANC_SIG	6	
REG_GND_AV	5	
AUDIO_R_I/O	4	
REG_GND_AV	3	
AUDIO_L_I/O	2	
REG_GND_AV	1	

31P CN7402

R7407 0

C7401 XX

C7402 XX

C7403 0.1u 10V

R7406 XX

R7405 150

R7404 150

R7403 150

R7402 150

R7401 XX

D7401 CL-271HR-C-TS (MS ACCESS)

FB7408

FB7402

FB7403

C7405 470p 50V

C7404 470p 50V

VD7402

VD7403

VD7407

CN7401 MEMORY STICK CONNECTOR

1	VSS
2	MSBS
3	MSDATA1
4	MSDATA0
5	MSDATA2
6	XMS_IN
7	MSDATA3
8	MS_SCLK
9	VCC
10	VSS

12

11

SH_GND_A

SH_GND_B

MEMORY STICK DUO

1	S_Y_I/O
2	REG_GND_AV
3	S_C_I/O
4	REG_GND_AV
5	VIDEO_I/O
6	REG_GND_AV
7	LANC_DC
8	REG_GND_AV
9	MULTI_JACK_IN
10	LANC_SIG
11	REG_GND_AV
12	AUDIO_R_I/O
13	REG_GND_AV
14	AUDIO_L_I/O

CN7403 14P

LND001 S_Y_I/O 1

LND002 REG_GND_AV 2

LND003 S_C_I/O 3

LND004 REG_GND_AV 4

LND005 VIDEO_I/O 5

LND006 REG_GND_AV 6

LND007 LANC_DC 7

LND008 REG_GND_AV 8

LND009 MULTI_JACK_IN 9

LND010 LANC_SIG 10

LND011 REG_GND_AV 11

LND012 AUDIO_R_I/O 12

LND013 REG_GND_AV 13

LND014 AUDIO_L_I/O 14

10	S_Y_I/O
9	VIDEO_I/O
8	VIDEO/AUDIO_GND
7	JACK_AD
6	AUDIO_R
5	S_C_I/O
4	N.C.(LANC_DC)
3	S GND
2	N.C.(LANC_SIG)
1	AUDIO_L

CN002

A/V OUT

FP-531 FLEXIBLE BOARD

AV MULTI

FP-543
LND031-061
(PAGE 4-37 of LEVEL2)

02

FP-534
FLEXIBLE BOARD

VC-BL CONNECTION

(PRINTED WIRING BOARD is omitted.)

VC-478
(11/11)
CN3701
(PAGE 4-20 of LEVEL3)

EVF_VDD	20	20	EVF_VDD
EVF_GND	19	19	EVF_GND
EVF_HST	18	18	EVF_HST
EVF_HCK2	17	17	EVF_HCK2
EVF_HCK1	16	16	EVF_HCK1
EVF_GND	15	15	EVF_GND
EVF_REF	14	14	EVF_REF
EVF_VST	13	13	EVF_VST
EVF_EN	12	12	EVF_EN
EVF_STB	11	11	EVF_STB
EVF_VCK	10	10	EVF_VCK
EVF_PCG	9	9	EVF_PCG
EVF_VB	8	8	EVF_VB
EVF_VR	7	7	EVF_VR
EVF_VG	6	6	EVF_VG
EVF_PSIG	5	5	EVF_PSIG
EVF_COM	4	4	EVF_COM
EVF_GND	3	3	EVF_GND
EP_4.6V	2	2	EP_4.6V
LED_K	1	1	LED_K

BL-004 BOARD

EVF,EVF BACKLIGHT

XX MARK:NO MOUNT

CN5901
20P

LED_K	1	
EP_4.6V	2	
EVF_GND	3	
EVF_COM	4	
EVF_PSIG	5	
EVF_VG	6	
EVF_VR	7	
EVF_VB	8	
EVF_PCG	9	
EVF_VCK	10	
EVF_STB	11	
EVF_EN	12	
EVF_VST	13	
EVF_REF	14	
EVF_GND	15	
EVF_HCK1	16	
EVF_HCK2	17	
EVF_HST	18	
EVF_GND	19	
EVF_VDD	20	

D5901
NESW007AT-T099
(EVF BACKLIGHT)

R5901 XX

RB5901 XX

R5904 XX

C5901 0.1u

C5902 1u

D5902
MAZS056008S0

R5902 XX

C5903 XX

	21	EVF_COM
	20	EVF_PSIG
	19	EVF_VG
	18	EVF_VR
	17	EVF_VB
	16	EVF_PCG
	15	EVF_EN
	14	EVF_VCK
	13	EVF_VST
	12	EVF_STB
	11	EVF_REF
	10	EVF_DWN
	9	EVF_NRW
	8	EVF_RGT
	7	EVF_HCK1
	6	EVF_HCK2
	5	EVF_HST
	4	VSSG
	3	VSS
	2	EVF_VDD
	1	N.C.

CN5902 21P

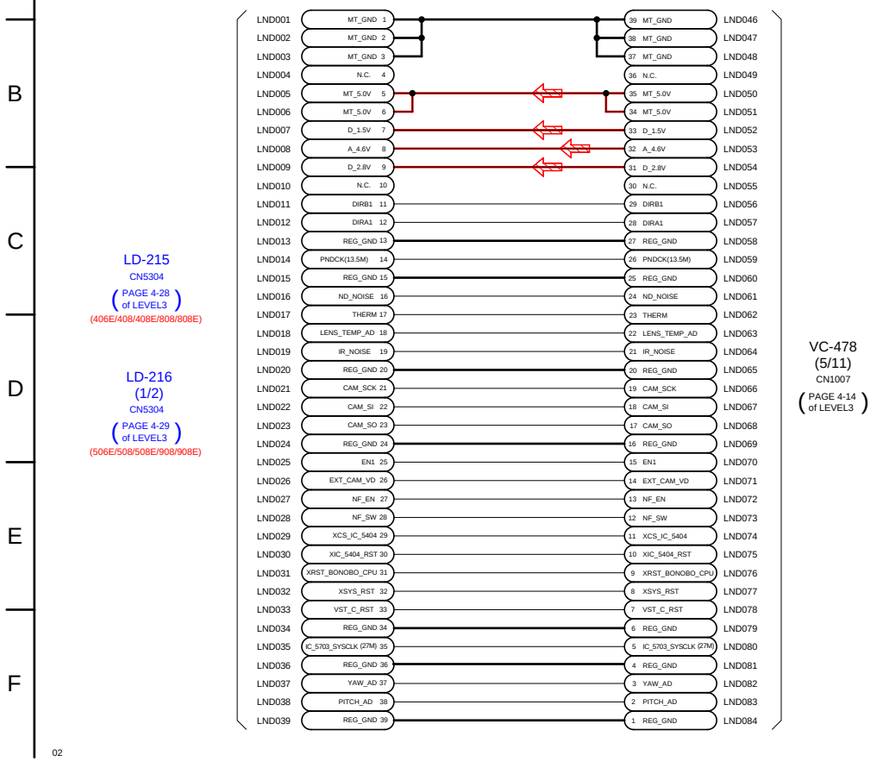
LCD9002
COLOR
EVF
UNIT

02

FP-530 FLEXIBLE BOARD

LD-VC CONNECTION

(PRINTED WIRING BOARD is omitted.)

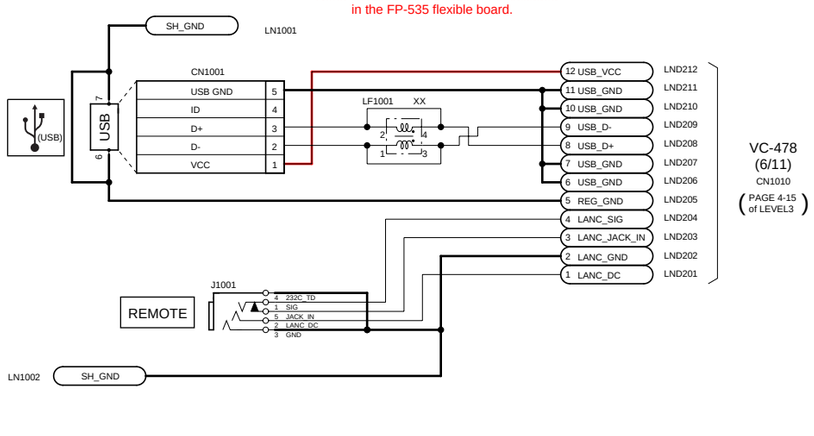

LD-215
CN5304
PAGE 4-28 of LEVEL3
(406E/408/408E/808/808E)
LD-216
(1/2)
CN5304
PAGE 4-29 of LEVEL3
(506E/508/508E/908/908E)
LND001 MT_GND 1 — 39 MT_GND LND046
LND002 MT_GND 2 — 38 MT_GND LND047
LND003 MT_GND 3 — 37 MT_GND LND048
LND004 N.C. 4 — 36 N.C. LND049
LND005 MT_5.0V 5 — 35 MT_5.0V LND050
LND006 MT_5.0V 6 — 34 MT_5.0V LND051
LND007 D_1.5V 7 — 33 D_1.5V LND052
LND008 A_4.6V 8 — 32 A_4.6V LND053
LND009 D_2.8V 9 — 31 D_2.8V LND054
LND010 N.C. 10 — 30 N.C. LND055
LND011 DIRB1 11 — 29 DIRB1 LND056
LND012 DIRA1 12 — 28 DIRA1 LND057
LND013 REG_GND 13 — 27 REG_GND LND058
LND014 PNDCK(13.5M) 14 — 26 PNDCK(13.5M) LND059
LND015 REG_GND 15 — 25 REG_GND LND060
LND016 ND_NOISE 16 — 24 ND_NOISE LND061
LND017 THERM 17 — 23 THERM LND062
LND018 LENS_TEMP_AD 18 — 22 LENS_TEMP_AD LND063
LND019 IR_NOISE 19 — 21 IR_NOISE LND064
LND020 REG_GND 20 — 20 REG_GND LND065
LND021 CAM_SCK 21 — 19 CAM_SCK LND066
LND022 CAM_SI 22 — 18 CAM_SI LND067
LND023 CAM_SO 23 — 17 CAM_SO LND068
LND024 REG_GND 24 — 16 REG_GND LND069
LND025 EN1 25 — 15 EN1 LND070
LND026 EXT_CAM_VD 26 — 14 EXT_CAM_VD LND071
LND027 NF_EN 27 — 13 NF_EN LND072
LND028 NF_SW 28 — 12 NF_SW LND073
LND029 XCS_IC_5404 29 — 11 XCS_IC_5404 LND074
LND030 XIC_5404_RST 30 — 10 XIC_5404_RST LND075
LND031 XRST_BONOBO_CPU 31 — 9 XRST_BONOBO_CPU LND076
LND032 XSYS_RST 32 — 8 XSYS_RST LND077
LND033 VST_C_RST 33 — 7 VST_C_RST LND078
LND034 REG_GND 34 — 6 REG_GND LND079
LND035 IC_5703_SYSCLK (27M) 35 — 5 IC_5703_SYSCLK (27M) LND080
LND036 REG_GND 36 — 4 REG_GND LND081
LND037 YAW_AD 37 — 3 YAW_AD LND082
LND038 PITCH_AD 38 — 2 PITCH_AD LND083
LND039 REG_GND 39 — 1 REG_GND LND084
VC-478
(5/11)
CN1007
PAGE 4-14 of LEVEL3
02

FP-535 FLEXIBLE BOARD

USB CONNECTOR

XX MARK:NO MOUNT

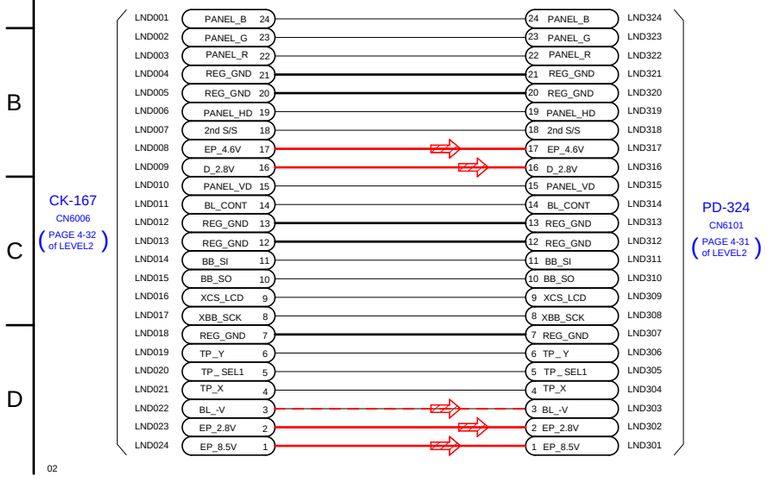
Note: CN1001 and J1001 are not included in the FP-535 flexible board.



FP-537 FLEXIBLE BOARD

CK-PD CONNECTION

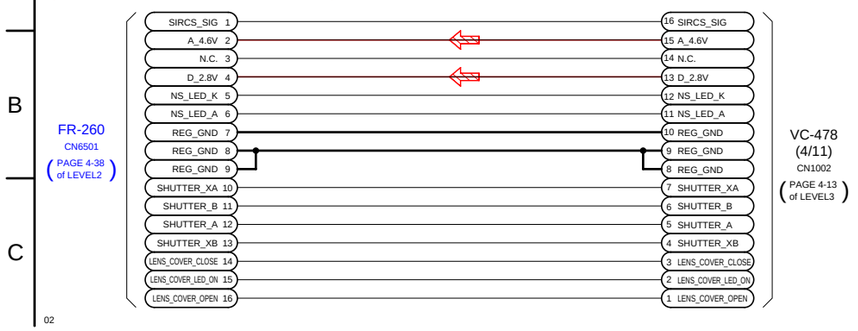
(PRINTED WIRING BOARD is omitted.)


CK-167
CN6006
PAGE 4-32 of LEVEL2
LND001 PANEL_B 24 — 24 PANEL_B LND324
LND002 PANEL_G 23 — 23 PANEL_G LND323
LND003 PANEL_R 22 — 22 PANEL_R LND322
LND004 REG_GND 21 — 21 REG_GND LND321
LND005 REG_GND 20 — 20 REG_GND LND320
LND006 PANEL_HD 19 — 19 PANEL_HD LND319
LND007 2nd S/S 18 — 18 2nd S/S LND318
LND008 EP_4.6V 17 — 17 EP_4.6V LND317
LND009 D_2.8V 16 — 16 D_2.8V LND316
LND010 PANEL_VD 15 — 15 PANEL_VD LND315
LND011 BL_CONT 14 — 14 BL_CONT LND314
LND012 REG_GND 13 — 13 REG_GND LND313
LND013 REG_GND 12 — 12 REG_GND LND312
LND014 BB_SI 11 — 11 BB_SI LND311
LND015 BB_SO 10 — 10 BB_SO LND310
LND016 XCS_LCD 9 — 9 XCS_LCD LND309
LND017 XBB_SCK 8 — 8 XBB_SCK LND308
LND018 REG_GND 7 — 7 REG_GND LND307
LND019 TP_Y 6 — 6 TP_Y LND306
LND020 TP_SEL1 5 — 5 TP_SEL1 LND305
LND021 TP_X 4 — 4 TP_X LND304
LND022 BL_-V 3 — 3 BL_-V LND303
LND023 EP_2.8V 2 — 2 EP_2.8V LND302
LND024 EP_8.5V 1 — 1 EP_8.5V LND301
PD-324
CN6101
PAGE 4-31 of LEVEL2
02

FP-539 FLEXIBLE BOARD

FR-VC CONNECTION

(PRINTED WIRING BOARD is omitted.)

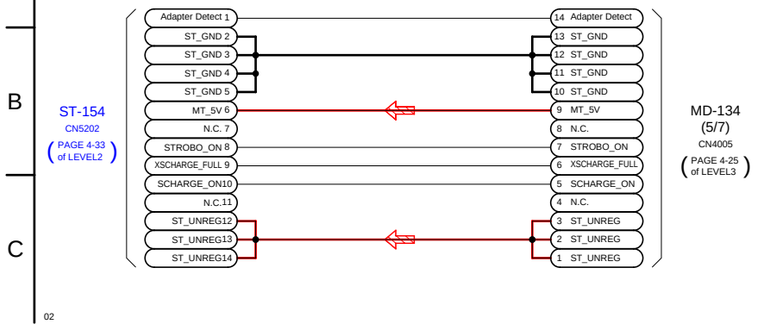


• Refer to page 4-4 (English), 4-5 (Japanese) for mark ⚠.

FP-540 FLEXIBLE BOARD

ST-MD CONNECTION

(PRINTED WIRING BOARD is omitted.)

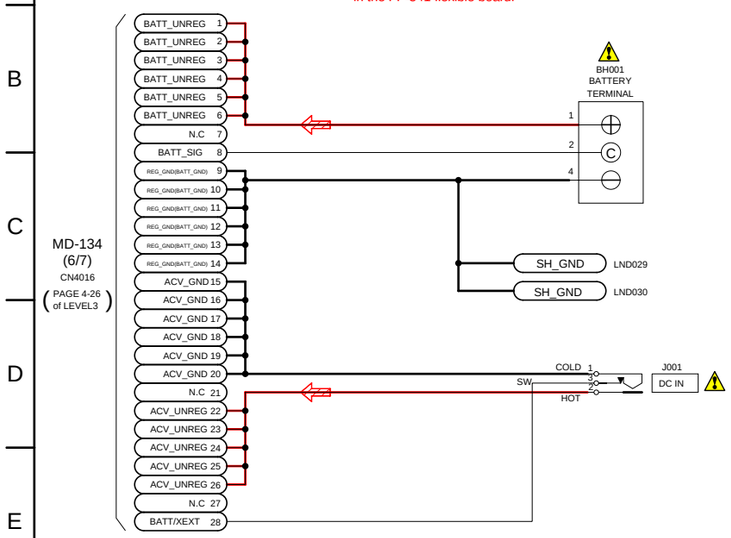


02

FP-541 FLEXIBLE BOARD

DC-IN, BATTERY TERMINAL

Note: BH001 and J001 are not included in the FP-541 flexible board.

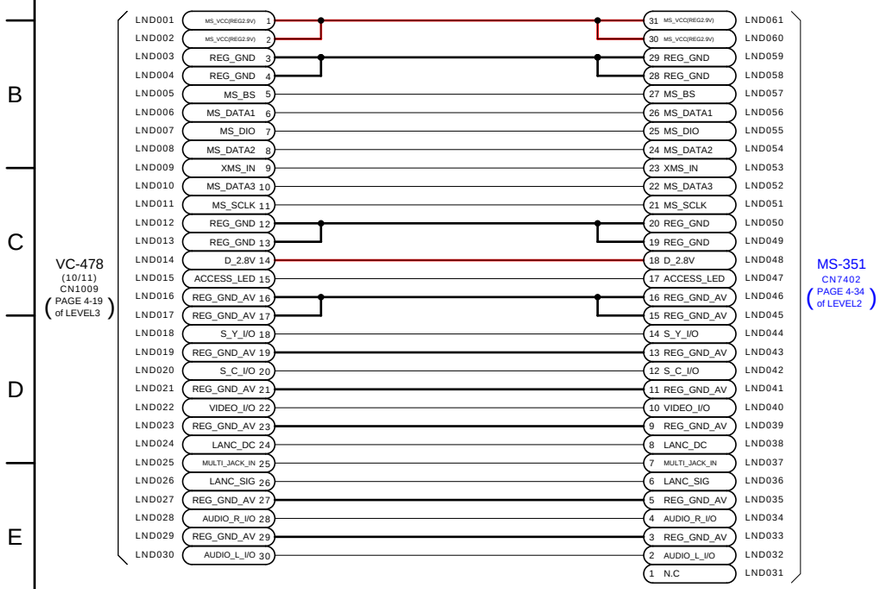


02

FP-543 FLEXIBLE BOARD

MS-VC CONNECTION

(PRINTED WIRING BOARD is omitted.)

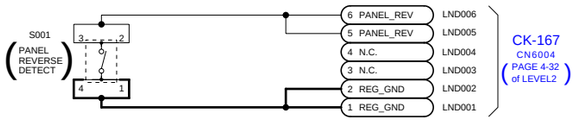


02

FP-546 FLEXIBLE BOARD

PANEL REVERSE DETECT SWITCH

Note: S001 is not supplied, but this is included in the FP-546 flexible complete board.



02

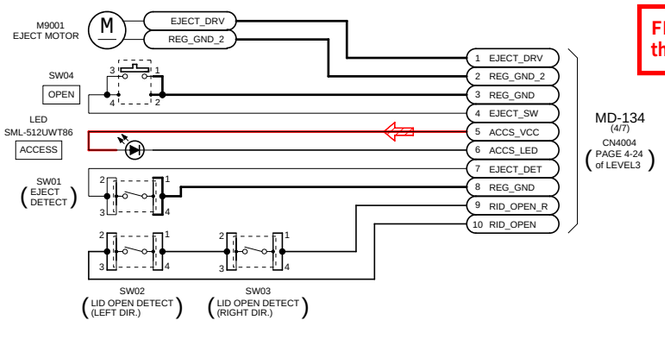
FP-640 FLEXIBLE BOARD

EJECT SWITCH/MOTOR

(PRINTED WIRING BOARD is omitted.)

FP-640 FLEXIBLE BOARDはEJECT UNITに含まれており単独では供給しておりません。

FP-640 FLEXIBLE BOARD is not supplied, but this is included in the EJECT UNIT.



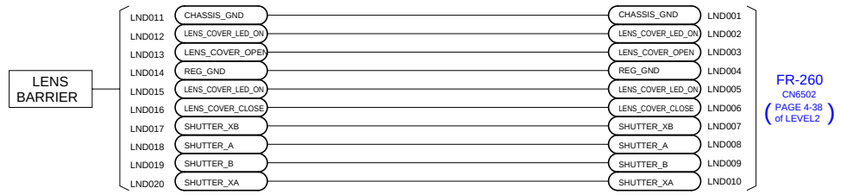
FP-712 FLEXIBLE BOARD

LENS BARRIER

(PRINTED WIRING BOARD is omitted.)

FP-712 FLEXIBLE BOARDはLENS BARRIER UNITに含まれており単独では供給しておりません。

FP-712 FLEXIBLE BOARD is not supplied, but this is included in the LENS BARRIER UNIT.

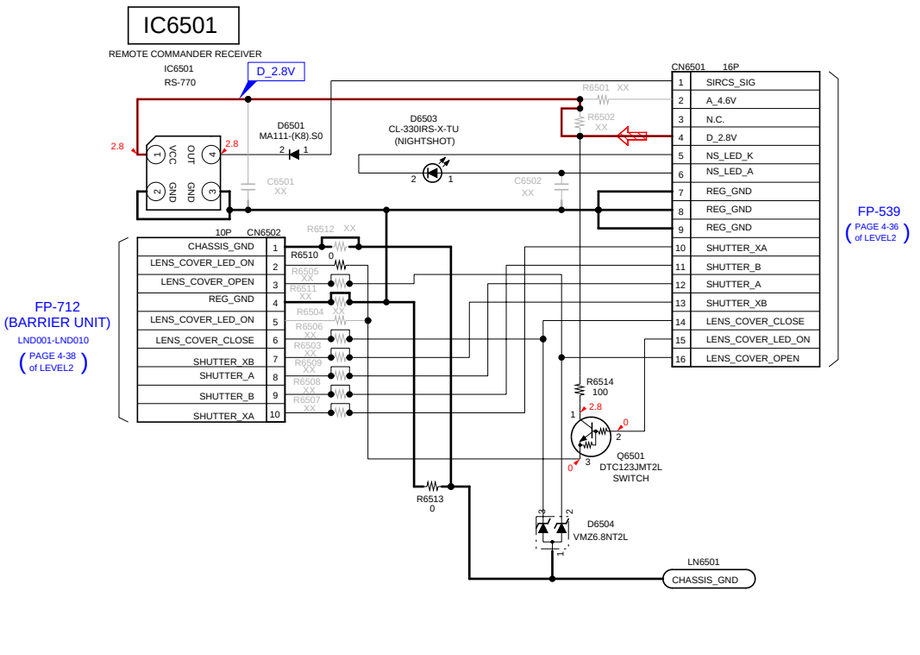


FR-260 BOARD

REMOTE COMMANDER RECEIVER

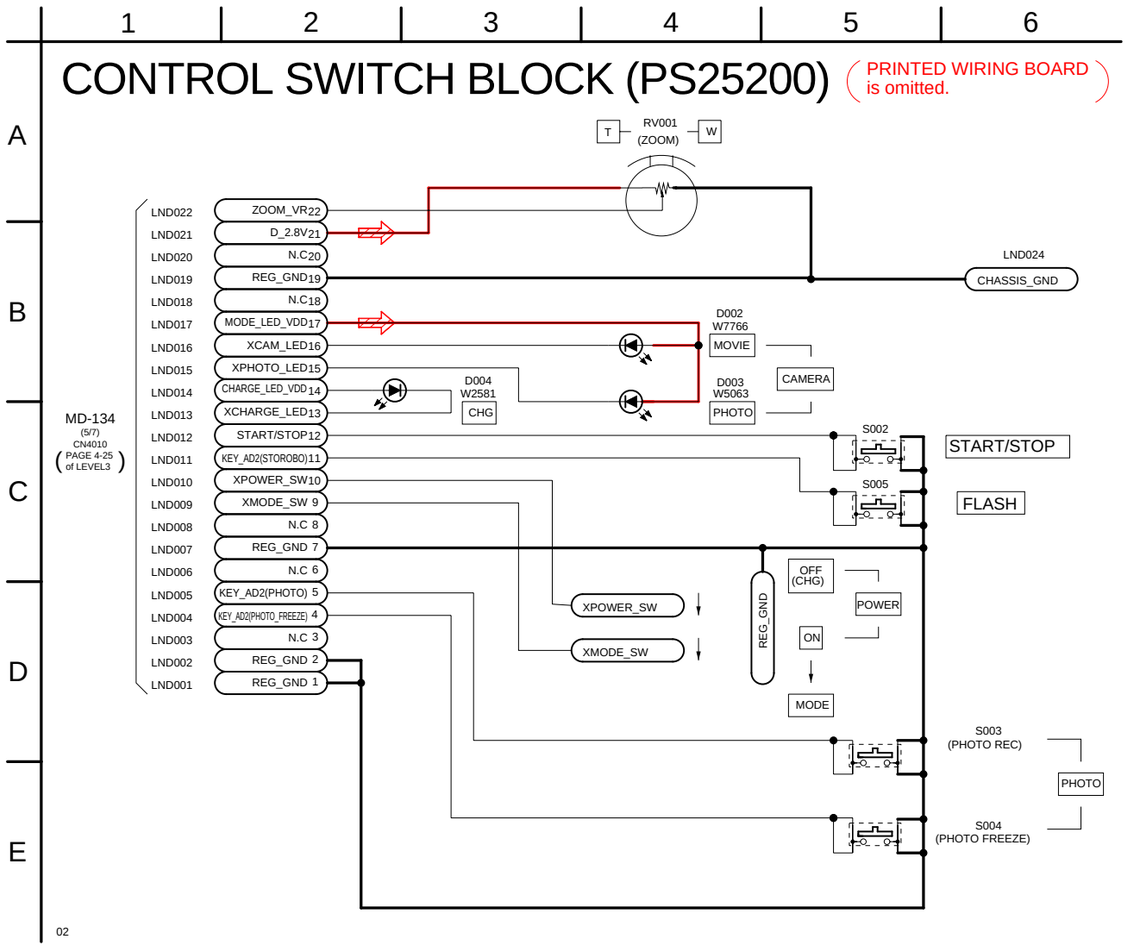
XX MARK:NO MOUNT

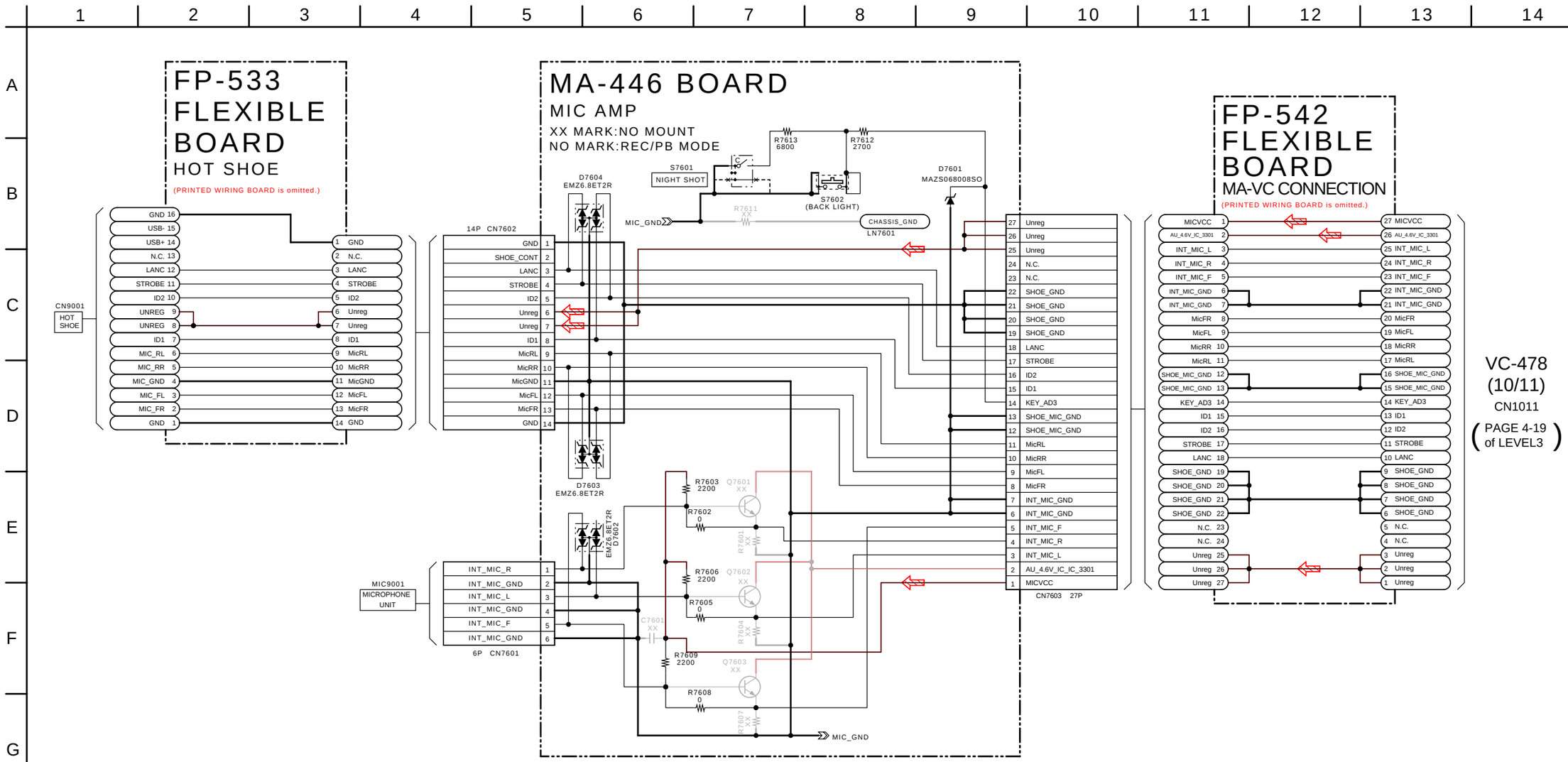
NO MARK:REC/PB MODE



CONTROL SWITCH BLOCK (PS25200)

PRINTED WIRING BOARD is omitted.




FP-533
FLEXIBLE
BOARD
HOT SHOE
(PRINTED WIRING BOARD is omitted.)
CN9001
HOT SHOE
GND 16
USB- 15
USB+ 14
N.C. 13
LANC 12
STROBE 11
ID2 10
UNREG 9
UNREG 8
ID1 7
MIC_RL 6
MIC_RR 5
MIC_GND 4
MIC_FL 3
MIC_FR 2
GND 1
1 GND
2 N.C.
3 LANC
4 STROBE
5 ID2
6 Unreg
7 Unreg
8 ID1
9 MicRL
10 MicRR
11 MicGND
12 MicFL
13 MicFR
14 GND
MA-446 BOARD
MIC AMP
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
14P CN7602
GND 1
SHOE_CONT 2
LANC 3
STROBE 4
ID2 5
Unreg 6
Unreg 7
ID1 8
MicRL 9
MicRR 10
MicGND 11
MicFL 12
MicFR 13
GND 14
D7604
EMZ6.8ET2R
D7603
EMZ6.8ET2R
D7602
EMZ6.8ET2R
S7601
NIGHT SHOT
S7602
(BACK LIGHT)
R7613
6800
R7612
2700
D7601
MAZS068008SO
R7611
XX
MIC_GND
CHASSIS_GND
LN7601
R7603
2200
Q7601
XX
R7602
0
R7601
XX
R7606
2200
Q7602
XX
R7605
0
R7604
XX
C7601
XX
R7609
2200
Q7603
XX
R7608
0
R7607
XX
MIC_GND
MIC9001
MICROPHONE UNIT
INT_MIC_R 1
INT_MIC_GND 2
INT_MIC_L 3
INT_MIC_GND 4
INT_MIC_F 5
INT_MIC_GND 6
6P CN7601
27 Unreg
26 Unreg
25 Unreg
24 N.C.
23 N.C.
22 SHOE_GND
21 SHOE_GND
20 SHOE_GND
19 SHOE_GND
18 LANC
17 STROBE
16 ID2
15 ID1
14 KEY_AD3
13 SHOE_MIC_GND
12 SHOE_MIC_GND
11 MicRL
10 MicRR
9 MicFL
8 MicFR
7 INT_MIC_GND
6 INT_MIC_GND
5 INT_MIC_F
4 INT_MIC_R
3 INT_MIC_L
2 AU_4.6V_IC_3301
1 MICVCC
CN7603 27P
FP-542
FLEXIBLE
BOARD
MA-VC CONNECTION
(PRINTED WIRING BOARD is omitted.)
MICVCC 1
AU_4.6V_IC_3301 2
INT_MIC_L 3
INT_MIC_R 4
INT_MIC_F 5
INT_MIC_GND 6
INT_MIC_GND 7
MicFR 8
MicFL 9
MicRR 10
MicRL 11
SHOE_MIC_GND 12
SHOE_MIC_GND 13
KEY_AD3 14
ID1 15
ID2 16
STROBE 17
LANC 18
SHOE_GND 19
SHOE_GND 20
SHOE_GND 21
SHOE_GND 22
N.C. 23
N.C. 24
Unreg 25
Unreg 26
Unreg 27
27 MICVCC
26 AU_4.6V_IC_3301
25 INT_MIC_L
24 INT_MIC_R
23 INT_MIC_F
22 INT_MIC_GND
21 INT_MIC_GND
20 MicFR
19 MicFL
18 MicRR
17 MicRL
16 SHOE_MIC_GND
15 SHOE_MIC_GND
14 KEY_AD3
13 ID1
12 ID2
11 STROBE
10 LANC
9 SHOE_GND
8 SHOE_GND
7 SHOE_GND
6 SHOE_GND
5 N.C.
4 N.C.
3 Unreg
2 Unreg
1 Unreg
VC-478
(10/11)
CN1011
(PAGE 4-19
of LEVEL3)

4-3. PRINTED WIRING BOARDS

Link

PD-324 BOARD	MS-351 BOARD, FP-531 FLEXIBLE BOARD
CK-167 BOARD	BL-004 BOARD, FP-535 FLEXIBLE BOARD
ST-154 BOARD, MA-446 BOARD	FR-260 BOARD FP-541, FP-546 FLEXIBLE BOARD

COMMON NOTE FOR PRINTED WIRING BOARDS	MOUNTED PARTS LOCATION

4-3. PRINTED WIRING BOARDS

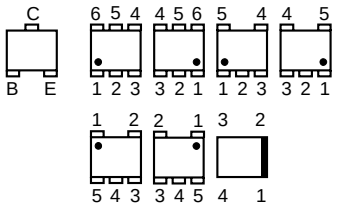
(ENGLISH)

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS

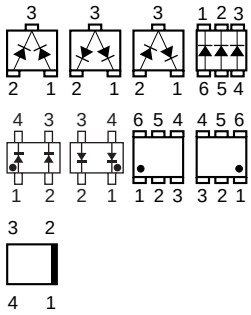
- : Uses unleaded solder.
- : Circuit board
  : Flexible board
  Pattern from the side which enables seeing.
  : pattern of the rear side
  (The other layers' patterns are not indicated)
- Through hole is omitted.
- There are a few cases that the part printed on diagram isn't mounted in this model.
- : panel designation

- Chip parts.

Transistor



Diode



(JAPANESE)

プリント図共通ノート

【プリント図ノート】

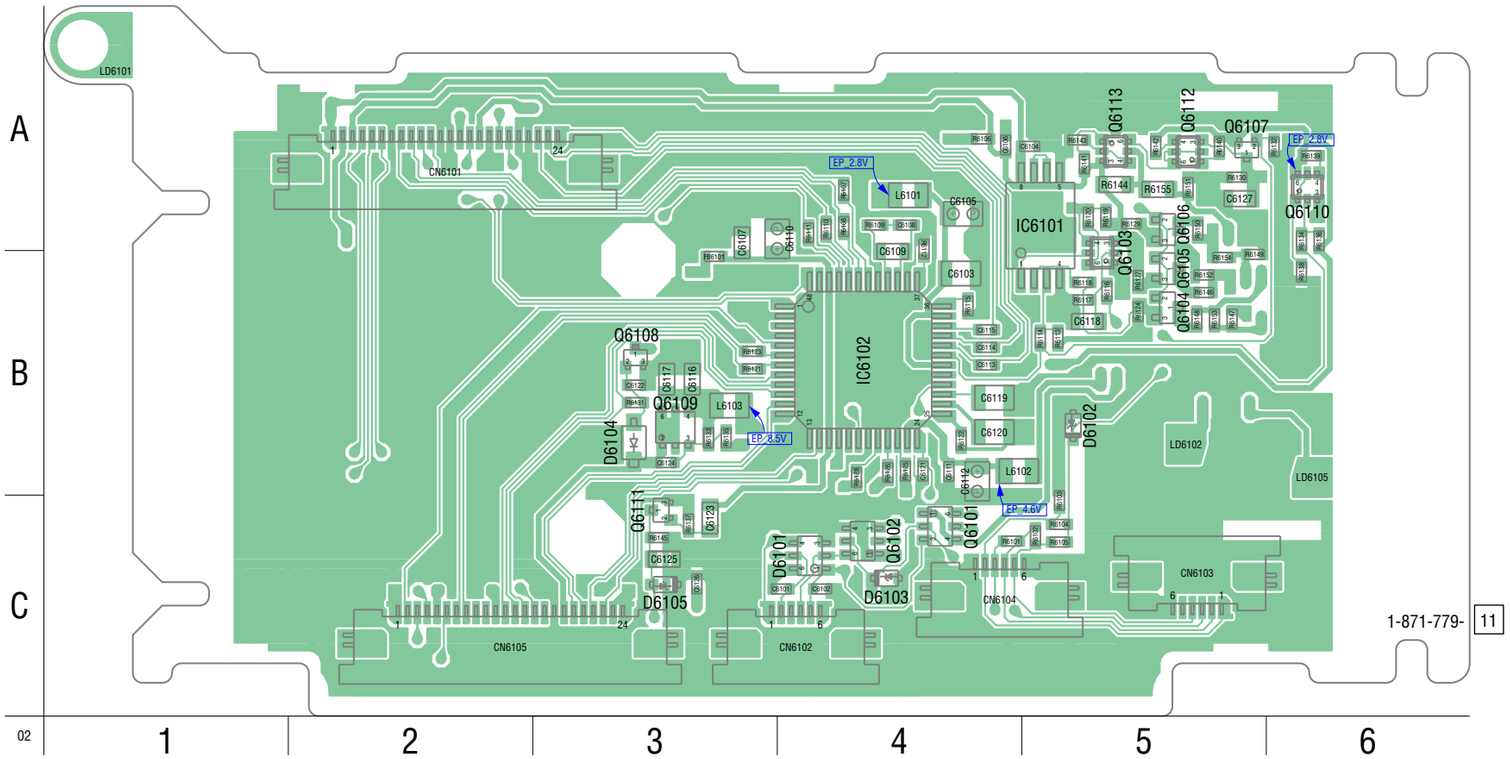
- **：無鉛半田を使用しています。**
- **：基板**
  ：フレキシブル配線板
  見ている面側のパターン。
  ：裏側のパターン
  （他のパターンについては表示されていません）
- **スルーホールは省略。**
- **プリント図には，本機で使用していない部品が記載されている場合があります。**
- **はパネル表示名称。**

Printed wiring boards of the CM-076, CM-077, LD-215, LD-216, VC-478 and MD-134 boards are not shown. Pages from 4-43 to 4-50 are not shown.

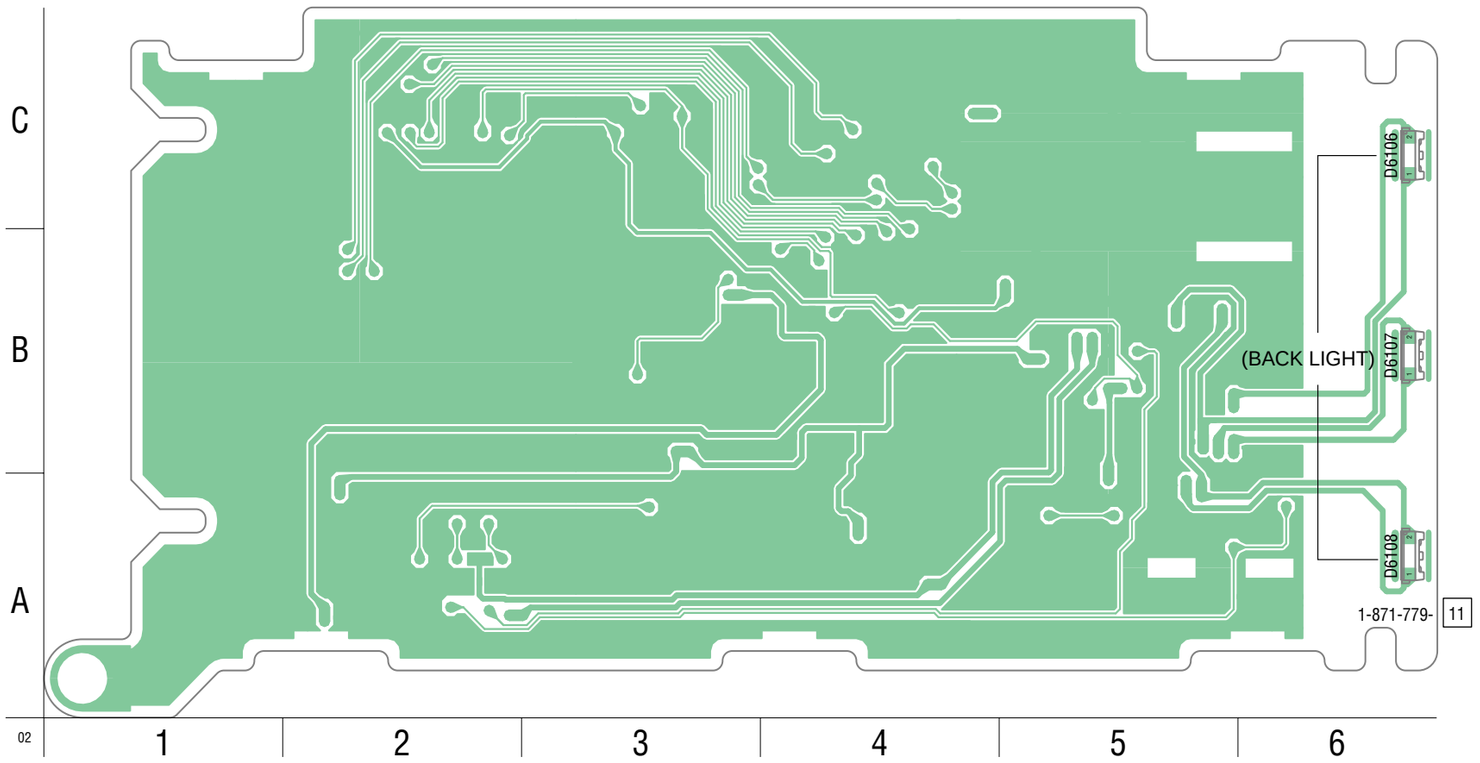
PD-324 (2 layers)

: Uses unleaded solder.

PD-324 BOARD (SIDE A)



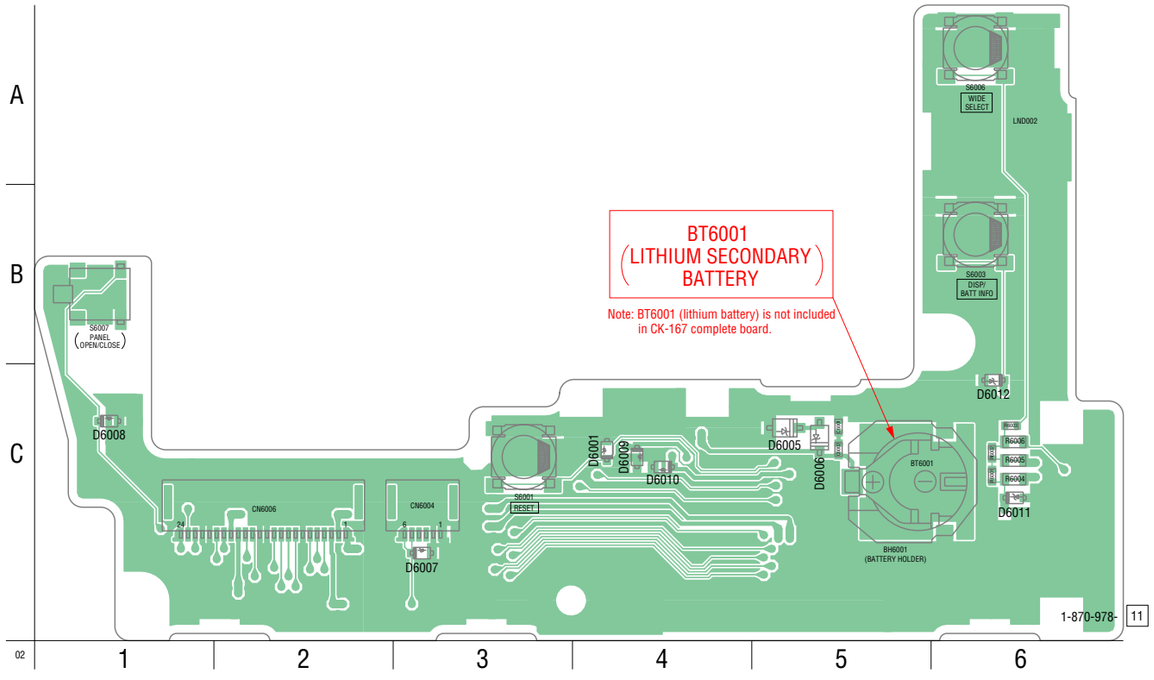
PD-324 BOARD (SIDE B)



CK-167 (2 layers)

: Uses unleaded solder.

CK-167 BOARD (SIDE A)



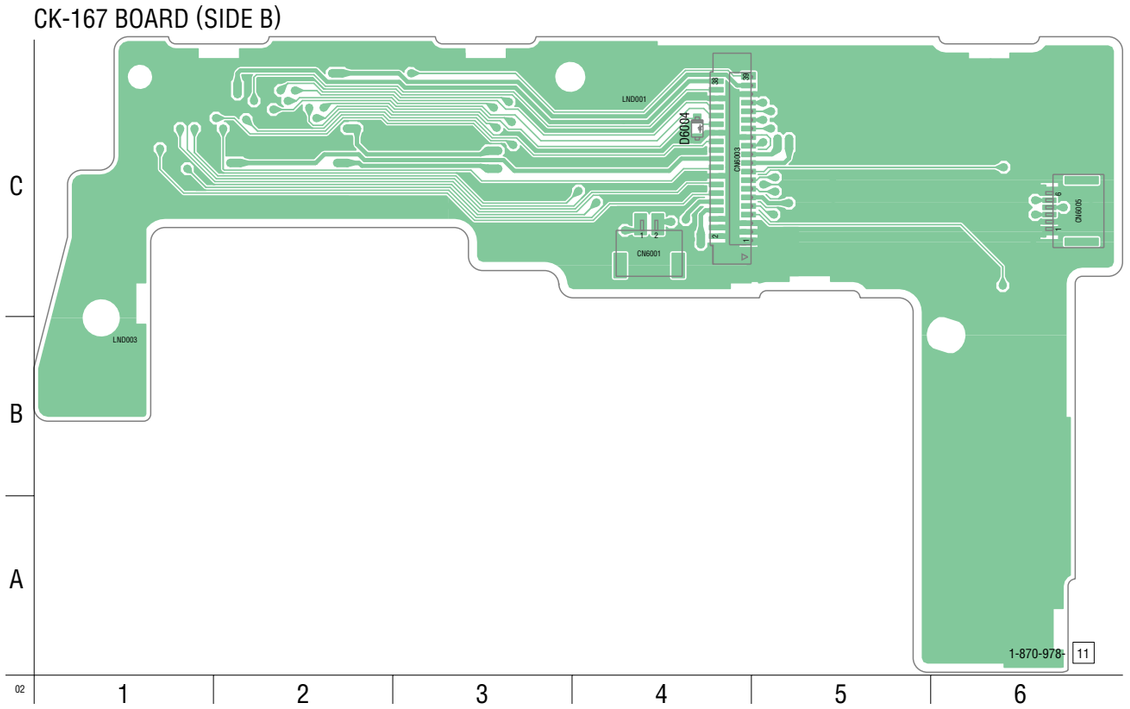
Note: Replace the battery holder (BH6001) together when replacing the lithium battery (BT6001) on the CK-167 board. (The battery holder removed once cannot be used again.)
When mounting these parts, mount new battery holder first and attach new lithium battery next.

**Note: CK-167基板のリチウム電池（BT6001）を交換する場合はバッテリホルダ（BH6001）も同時に新品に交換して下さい。（一度使用したバッテリホルダは再使用できません。）
部品取り付けの際は，先にバッテリホルダを取り付けてからリチウム電池を装着して下さい。**

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

**注意
電池の交換は，正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。**

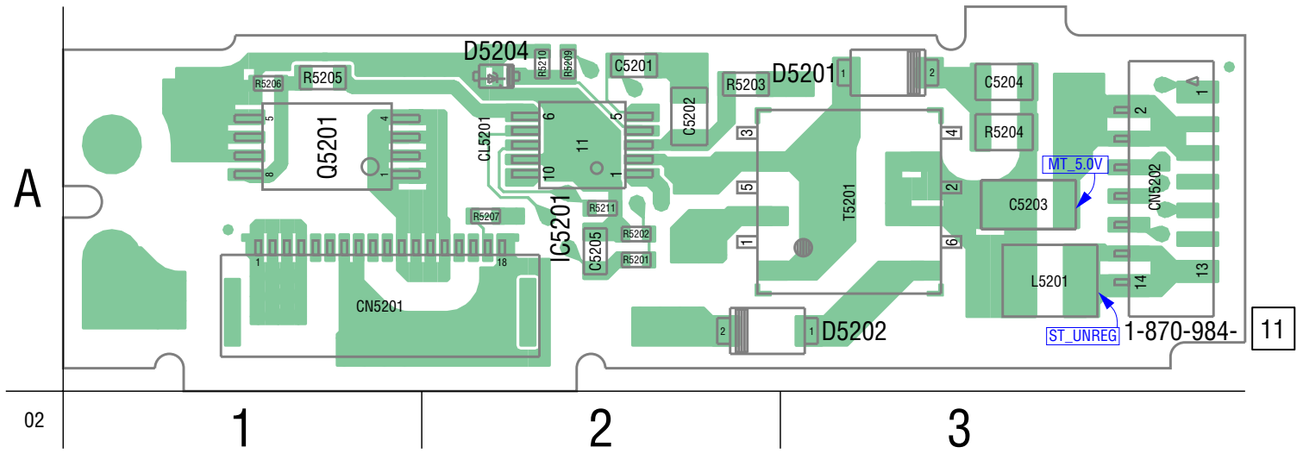
CK-167 BOARD (SIDE B)



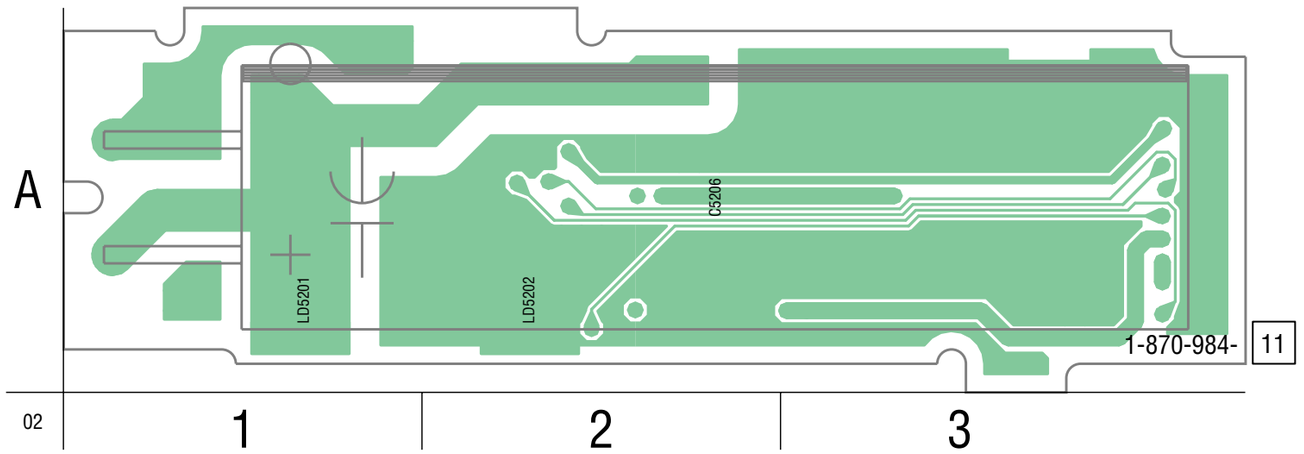
ST-154 (4 layers), MA-446 (4 layers)

: Uses unleaded solder.

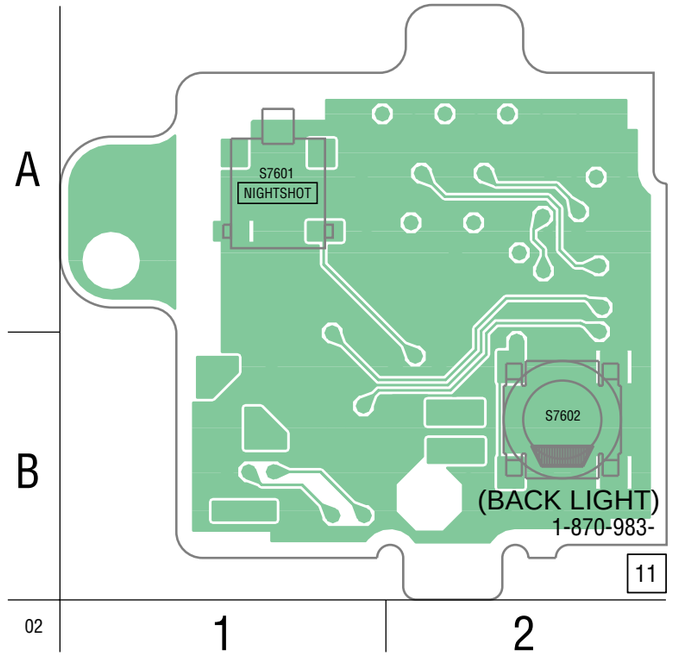
ST-154 BOARD (SIDE A)



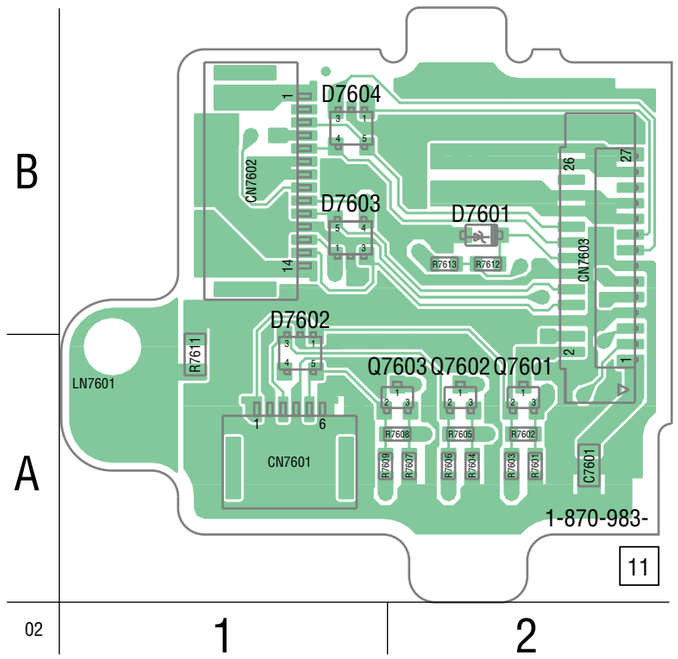
ST-154 BOARD (SIDE B)



MA-446 BOARD (SIDE A)



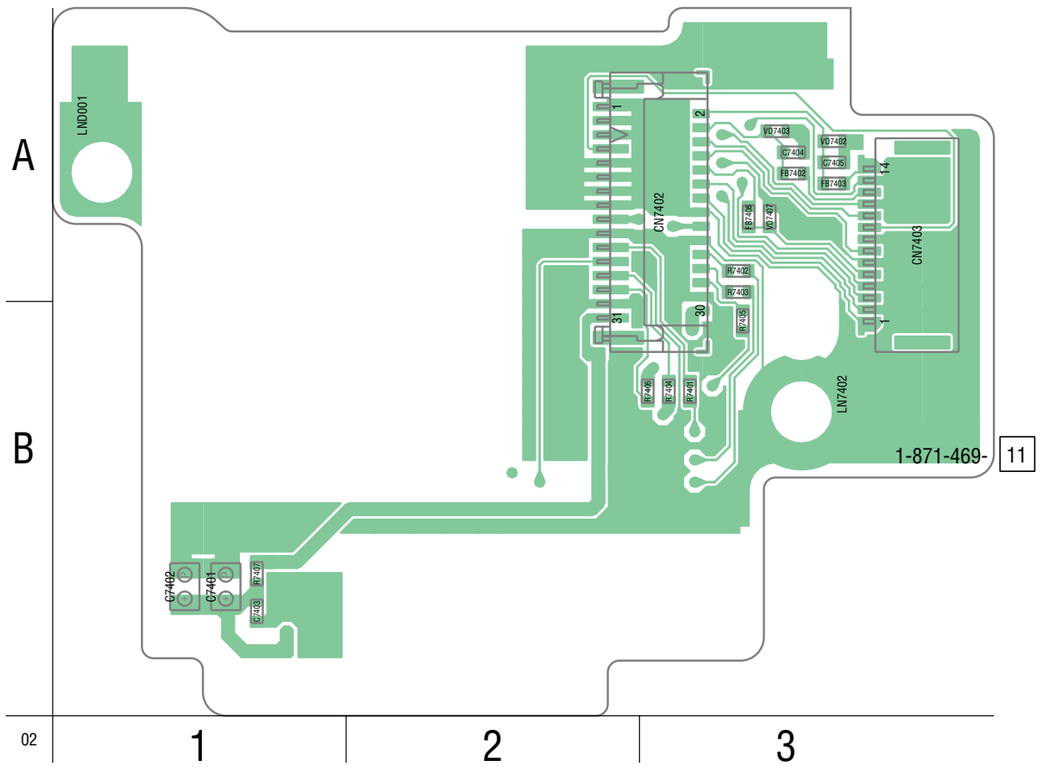
MA-446 BOARD (SIDE B)



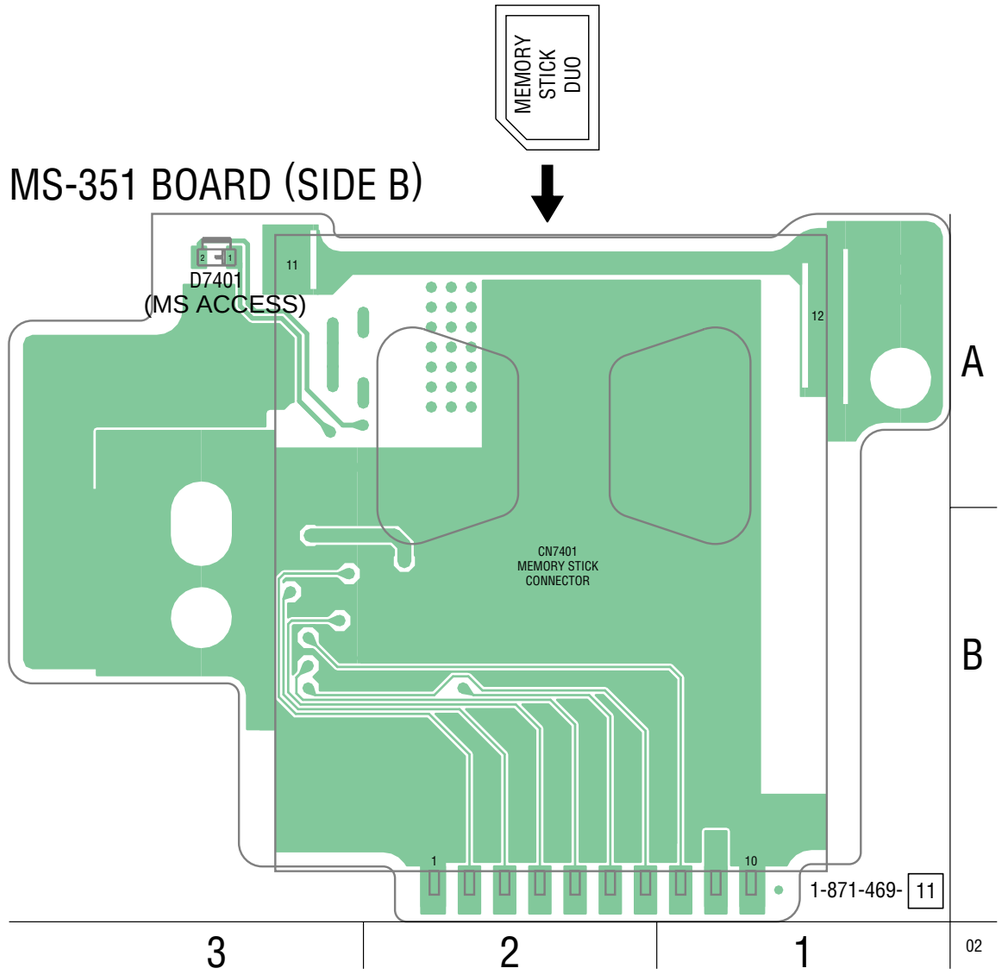
FP-531 (2 layers), MS-351 (4 layers)

: Uses unleaded solder.

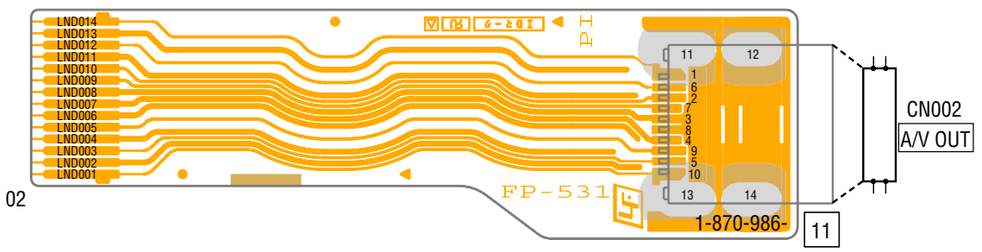
MS-351 BOARD (SIDE A)



MS-351 BOARD (SIDE B)



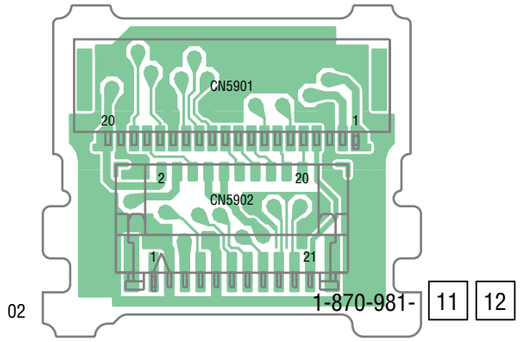
FP-531 FLEXIBLE BOARD



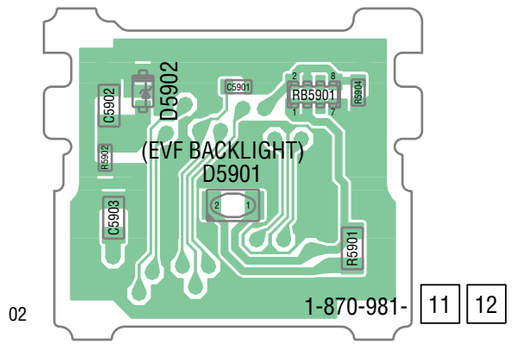
BL-004 (2 layers), FP-535 (2 layers)

: Uses unleaded solder.

BL-004 BOARD (SIDE A)

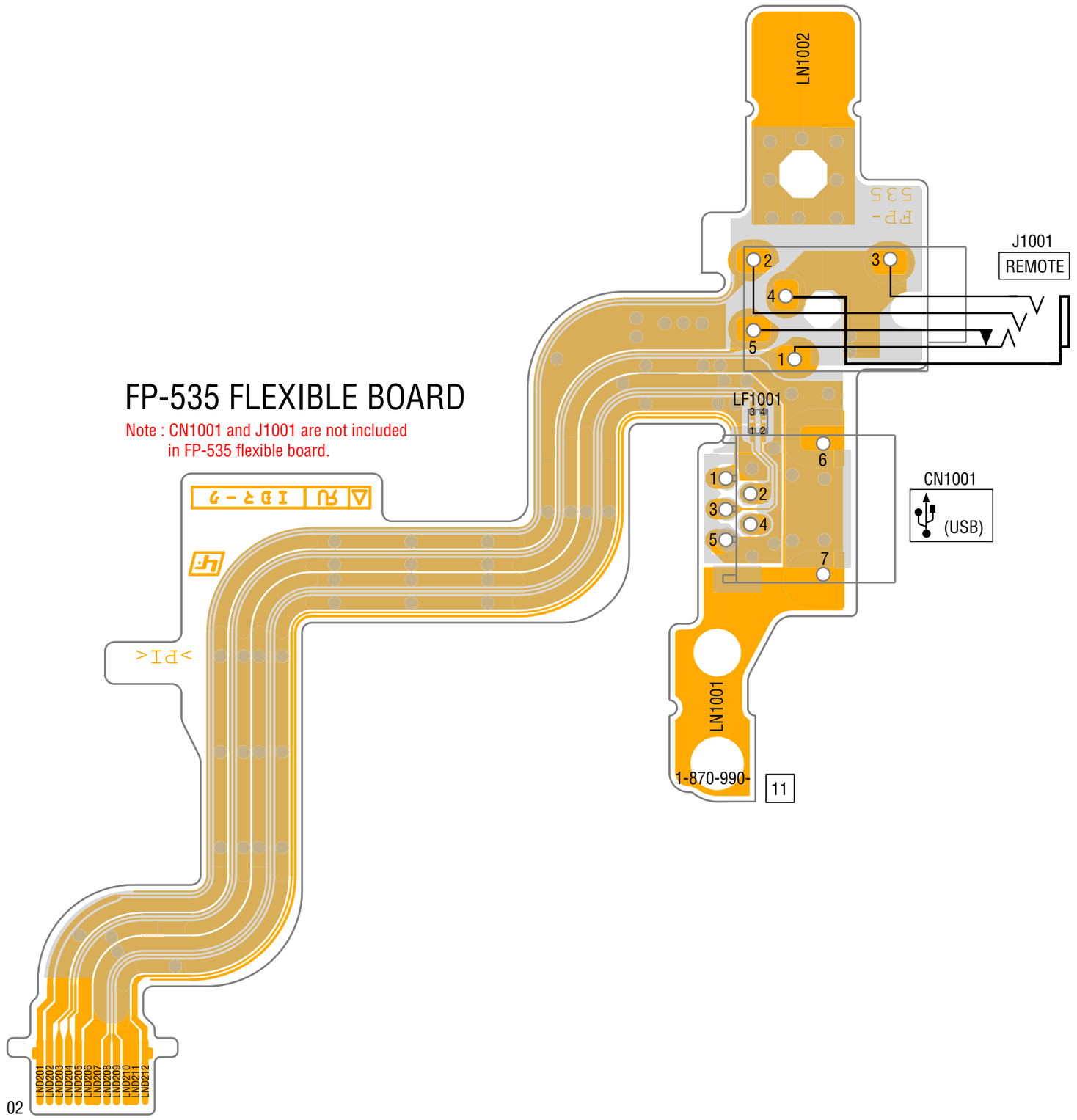


BL-004 BOARD (SIDE B)



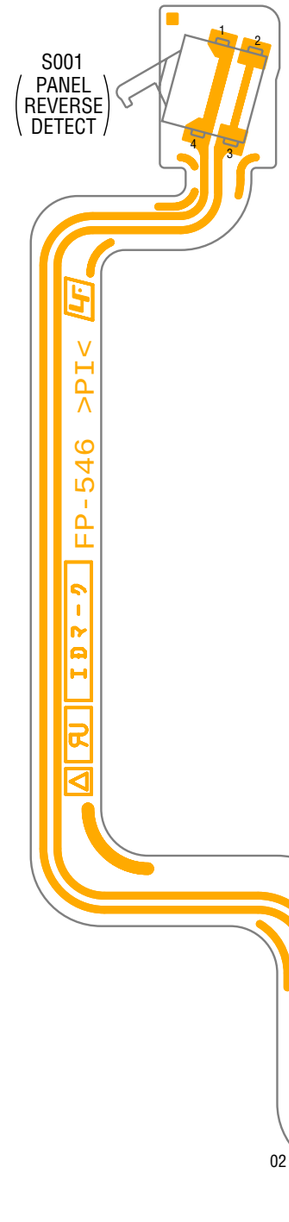
FP-535 FLEXIBLE BOARD

Note : CN1001 and J1001 are not included in FP-535 flexible board.



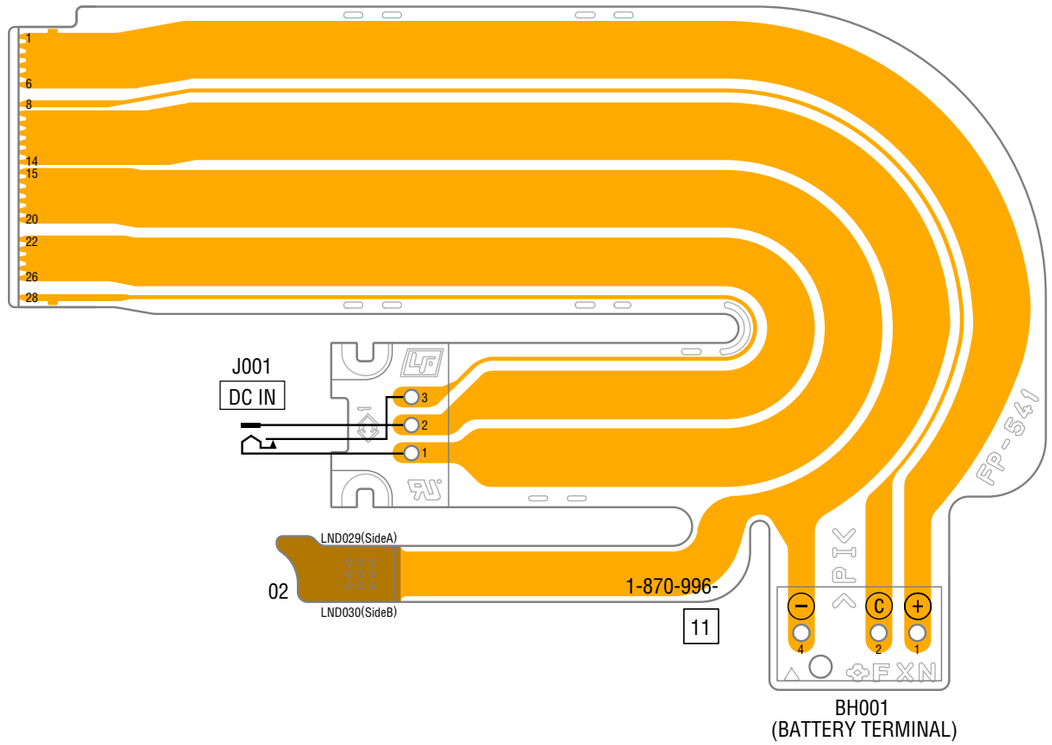
: Uses unleaded solder.

FP-546 FLEXIBLE BOARD

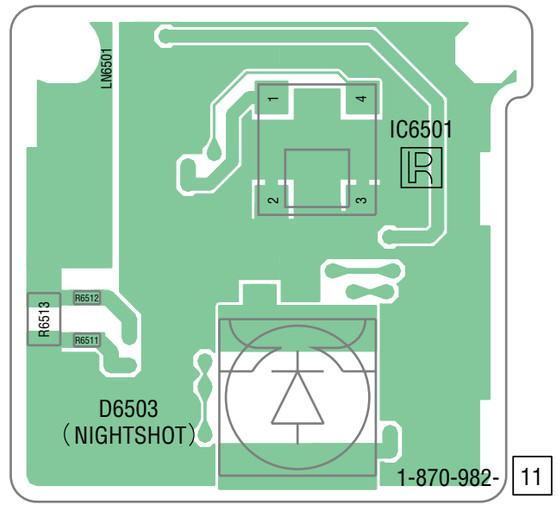


FP-541 FLEXIBLE BOARD

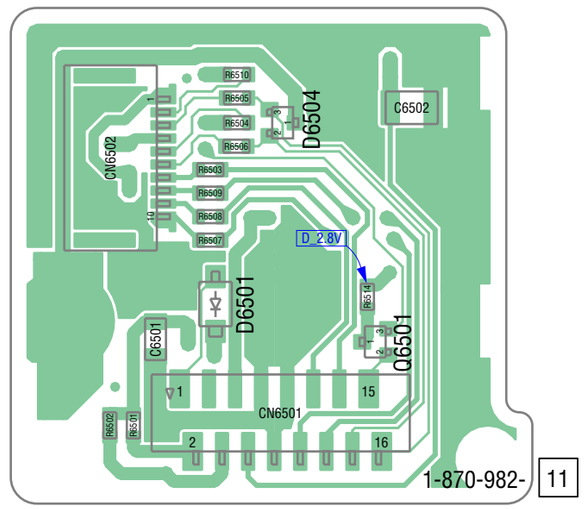
Note : BH001 and J001 are not included
in FP-541 flexible board.



FR-260 BOARD (SIDE A)



FR-260 BOARD (SIDE B)



Mounted parts location of the CM-076, CM-077, LD-215, LD-216, VC-478 and MD-134 boards are not shown. Pages 4-57 to 4-59 are not shown.

4-4. MOUNTED PARTS LOCATION

no mark : side A
* mark : side B

CK-167 BOARD

BH6001 C-5

* CN6001 C-4
* CN6003 C-4
CN6004 C-3
* CN6005 C-6
CN6006 C-2

* D6004 C-4

R6001 C-6
R6002 C-6
R6003 C-6

S6001 C-3
S6003 B-6
S6006 A-6
S6007 B-1

MA-446 BOARD

* CN7601 A-1
* CN7602 B-1
* CN7603 B-2

* D7601 B-2
* D7602 A-1
* D7603 B-1
* D7604 B-1

* R7602 A-2
* R7603 A-2
* R7605 A-2
* R7606 A-2
* R7608 A-1
* R7609 A-1
* R7612 B-2
* R7613 B-2

S7601 A-1

PD-324 BOARD

C6101 C-4
C6102 C-4
C6103 B-4
C6105 A-4
C6107 A-3
C6108 A-4
C6109 A-4
C6111 B-4
C6112 B-4
C6113 B-4
C6114 B-4
C6115 B-4
C6116 B-3
C6117 B-3
C6119 B-4
C6120 B-4
C6121 B-4
C6123 C-3
C6124 B-3
C6125 C-3
C6126 C-3

CN6101 A-2
CN6102 C-4
CN6104 C-4
CN6105 C-2

D6105 C-3
* D6106 C-6
* D6107 B-6
* D6108 A-6

FB6101 B-3

IC6102 B-4

L6101 A-4
L6102 B-4
L6103 B-3

Q6101 C-4
Q6102 C-4
Q6107 A-5
Q6108 B-3
Q6109 B-3
Q6110 A-6
Q6111 C-3
Q6112 A-5
Q6113 A-5

R6101 C-4
R6102 C-5
R6104 C-5
R6105 C-5
R6109 A-4
R6110 A-4
R6112 A-4
R6115 B-4
R6122 B-4
R6130 A-5
R6132 A-6
R6133 B-3
R6134 A-6
R6135 B-3
R6136 A-6
R6137 C-3
R6138 B-6
R6139 A-6
R6140 A-5
R6141 A-5
R6142 A-5
R6143 A-5
R6144 A-5
R6145 C-3
R6152 B-5
R6153 B-5
R6154 B-5
R6155 A-5

MS-351 BOARD

C7403 B-1
C7404 A-3
C7405 A-3

* CN7401 B-2
CN7402 A-3
CN7403 A-3

* D7401 A-3

FB7402 A-3
FB7403 A-3
FB7408 A-3

R7402 A-3
R7403 A-3
R7404 B-3
R7405 B-3
R7407 B-1

VD7402 A-3
VD7403 A-3
VD7407 A-3

ST-154 BOARD

C5201 A-2
C5202 A-2
C5203 A-3
C5204 A-3
* C5206 A-2

CN5201 A-1
CN5202 A-3

D5201 A-3
D5202 A-3
D5204 A-2

IC5201 A-2

L5201 A-3

Q5201 A-1

R5201 A-2
R5202 A-2
R5203 A-2
R5204 A-3
R5205 A-1

R5206 A-1

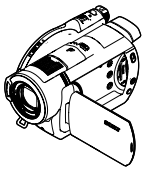
T5201 A-3

NOTE

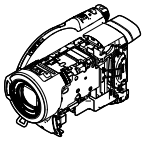
5. REPAIR PARTS LIST

NOTE: Characters A to Z of the electrical parts list indicate location of exploded views in which the desired part is shown.

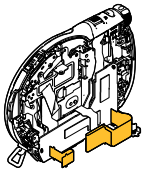
Link EXPLODED VIEWS



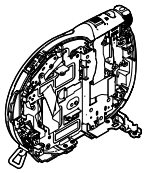
A OVERALL ASSEMBLY-1



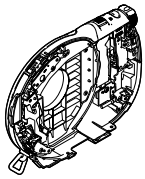
B OVERALL ASSEMBLY-2



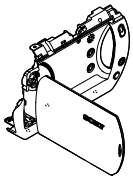
C OVERALL ASSEMBLY-3



D CABINET (L) BLOCK-1

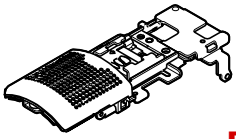


E CABINET (L) BLOCK-2

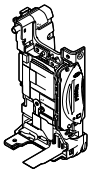


F CABINET (R) BLOCK

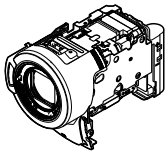
G LCD PANEL BLOCK



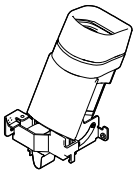
H SHOE BLOCK



I BT PANEL BLOCK



J LENS BLOCK



K EVF BLOCK

Link ELECTRICAL PARTS LIST

ACCESSORIES

BL-004 BOARD K	FP-536 FLEXIBLE BOARD C	FP-546 FLEXIBLE BOARD G
CK-167 BOARD F	FP-537 FLEXIBLE BOARD G	FR-260 BOARD J
FP-530 FLEXIBLE BOARD J	FP-539 FLEXIBLE BOARD C	MA-446 BOARD H
FP-531 FLEXIBLE BOARD I	FP-540 FLEXIBLE BOARD C	MS-351 BOARD I
FP-533 FLEXIBLE BOARD H	FP-541 FLEXIBLE BOARD I	PD-324 BOARD G
FP-534 FLEXIBLE BOARD K	FP-542 FLEXIBLE BOARD C	ST-154 BOARD J
FP-535 FLEXIBLE BOARD C	FP-543 FLEXIBLE BOARD I	

5. REPAIR PARTS LIST

(ENGLISH)

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- CAPACITORS:
  uF: µF
- COILS
  uH: µH
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

(JAPANESE)

【使用上の注意】

- **ここに記載されている部品は，補修用部品であるため，回路図及びセットに付いている部品と異なる場合があります。**
- **-XX，-Xは標準化部品のため，セットに付いている部品と異なる場合があります。**
- ***印の部品は常備在庫しておりません。**
- **コンデンサの単位でuFはµFを示します。**
- **抵抗の単位Ωは省略してあります。**
  金　　被：金属被膜抵抗。
  サンキン：酸化金属被膜抵抗。
- **インダクタの単位でuHはµHを示します。**
- **半導体の名称でuA...，uPA...，uPB...，uPC...，uPD...等はそれぞれµA...，µPA...，µPB...，µPC...，µPD...を示します。**

お願い

図面番号で部品を指定するときは基板名又はブロックを併せて指定してください。

⚠印の部品，または⚠印付の点線で囲まれた部品は，安全性を維持するために，重要な部品です。
従って交換時は,必ず指定の部品を使用してください。

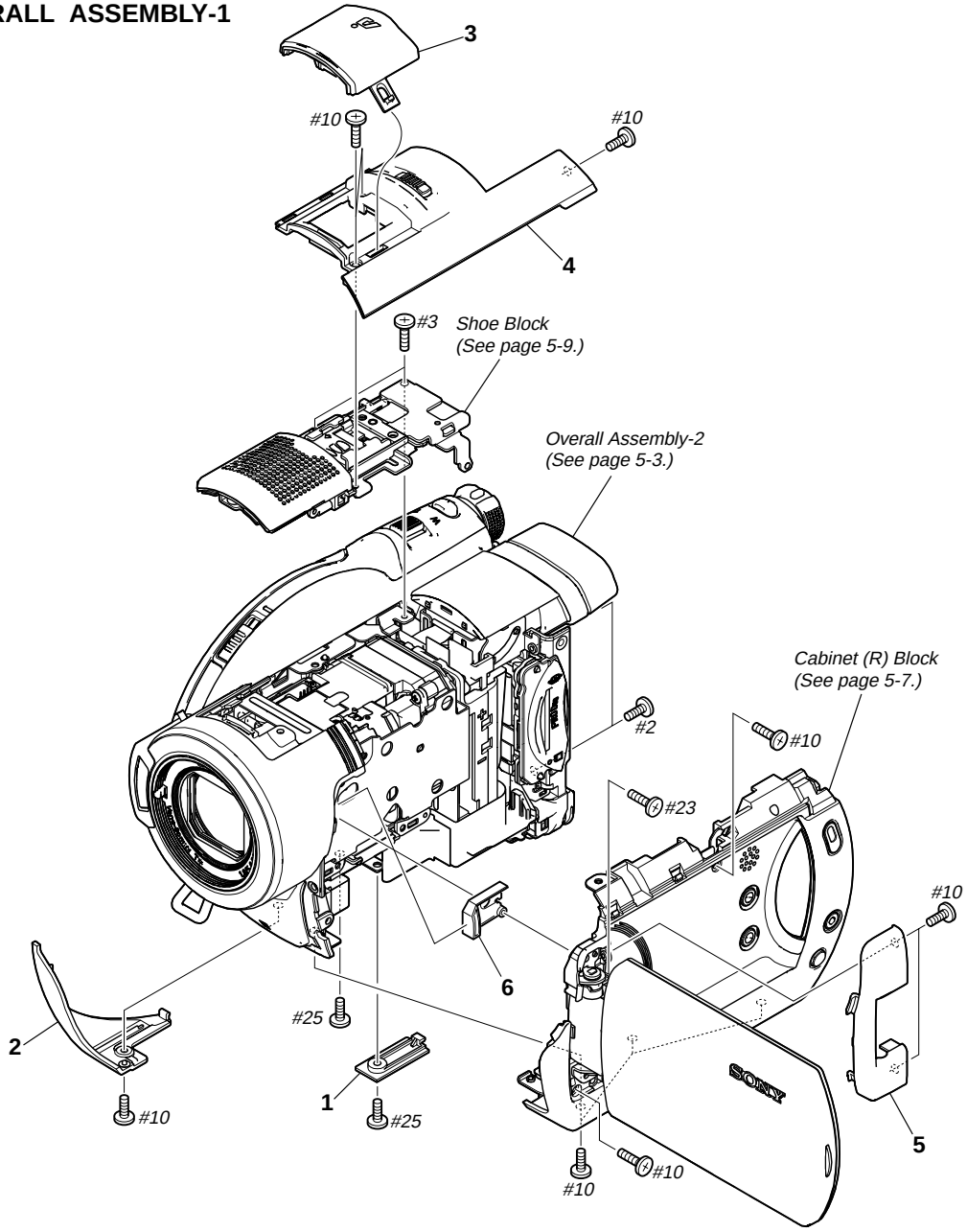
- Abbreviation
  AR : Argentine model
  AUS : Australian model
  BR : Brazilian model
  CH : Chinese model
  CND : Canadian model
  EE : East European model
  HK : Hong Kong model
  J : Japanese model
  JE : Tourist model
  KR : Korea model
  MX : Mexican model
  NE : North European model

5. REPAIR PARTS LIST

DISASSEMBLY HARDWARE LIST

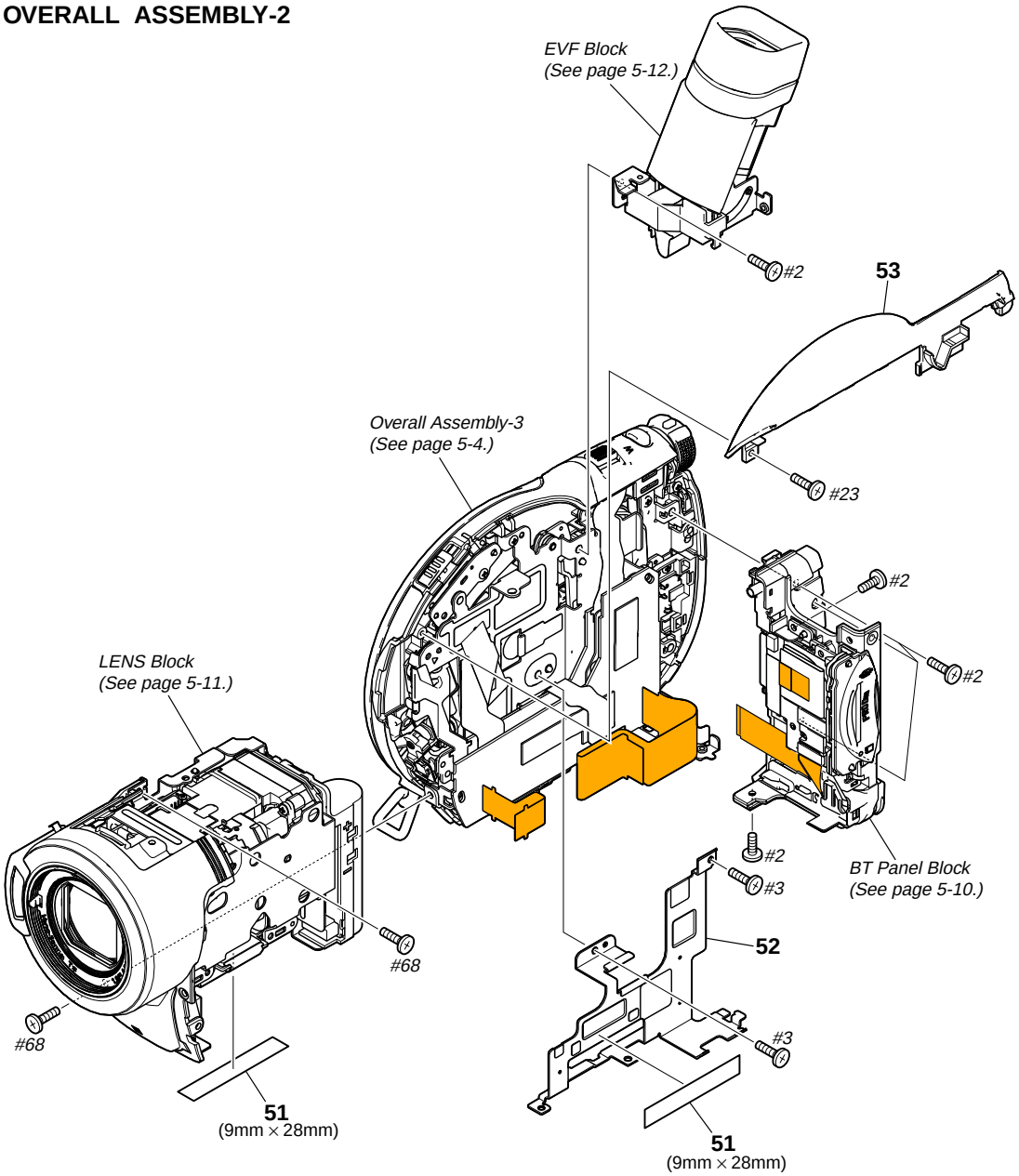
5-1. EXPLODED VIEWS

5-1-1. OVERALL ASSEMBLY-1



Ref. No.	Part No.	Description
1	3-096-308-11	LID, CPC
2	3-096-513-01	COVER (227), FRONT (506E/508/508E/908/908E)
2	3-096-513-11	COVER (227), FRONT (406E/408/408E/808/808E)
3	X-2176-881-1	COVER ASSY (227), SHOE (506E/508/508E/908/908E)
3	X-2176-882-1	COVER ASSY (226), SHOE (406E/408/408E/808/808E)
4	X-2176-877-1	CABINET ASSY (227), TOP (508:J)
4	X-2176-878-1	CABINET ASSY (227), TOP (506E/508:US, CND, E, JE/508E/908/908E)
4	X-2176-879-1	CABINET ASSY (226), TOP (406E/408/408E/808/808E)
5	3-096-549-01	COVER (R (227)), HINGE (506E/508/508E/908/908E)
5	3-096-549-11	COVER (R (227)), HINGE (406E/408/408E/808/808E)
6	3-098-917-01	SPACER, MIRACLE
#2	2-635-562-31	SCREW (M1.7) (Black)
#3	2-660-401-01	SCREW (M1.7), NEW TRU-STAR, P2 (Red)
#10	2-599-475-31	SCREW (M1.7) (Silver)
#23	3-080-204-11	SCREW, TAPPING, P2 (Black)
#25	2-635-562-21	SCREW (M1.7) (Black)

5-1-2. OVERALL ASSEMBLY-2



CAUTION:
For the part of 51, cut TAPE (3-941-343-21) into the desired length and use it.

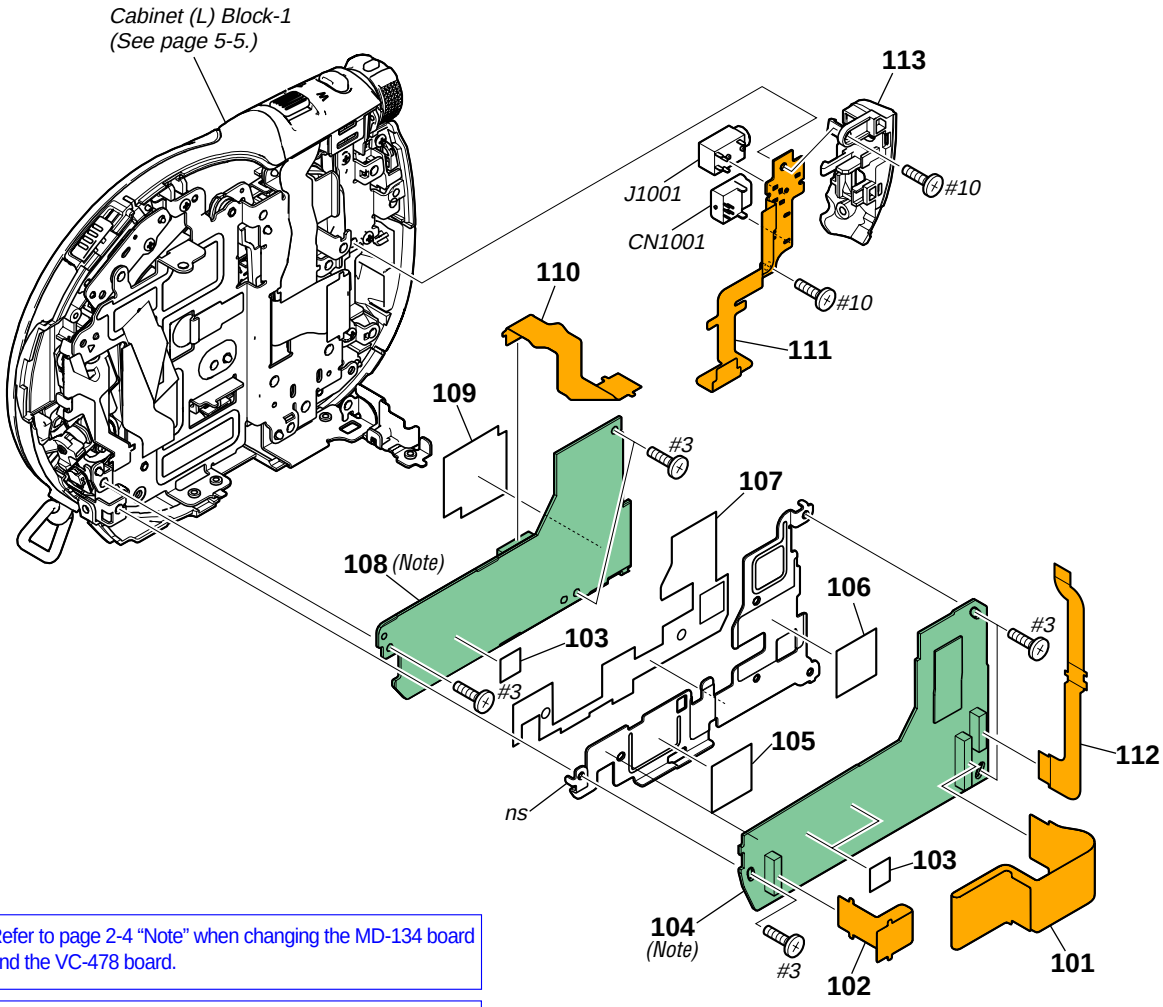
CAUTION:
51番は、TAPE(3-941-343-21)を切って使用。

Ref. No.	Part No.	Description
51	CAUTION	TAPE (A)
* 52	3-096-512-01	HEAT SINK (VC (227))
53	3-096-514-01	COVER (227), CABINET (L)

Ref. No.	Part No.	Description
#2	2-635-562-31	SCREW (M1.7) (Black)
#3	2-660-401-01	SCREW (M1.7), NEW TRU-STAR, P2 (Red)
#23	3-080-204-11	SCREW, TAPPING, P2 (Black)
#68	2-655-581-01	SCREW (M1.7) (Silver)

5-1-3. OVERALL ASSEMBLY-3

ns: not supplied

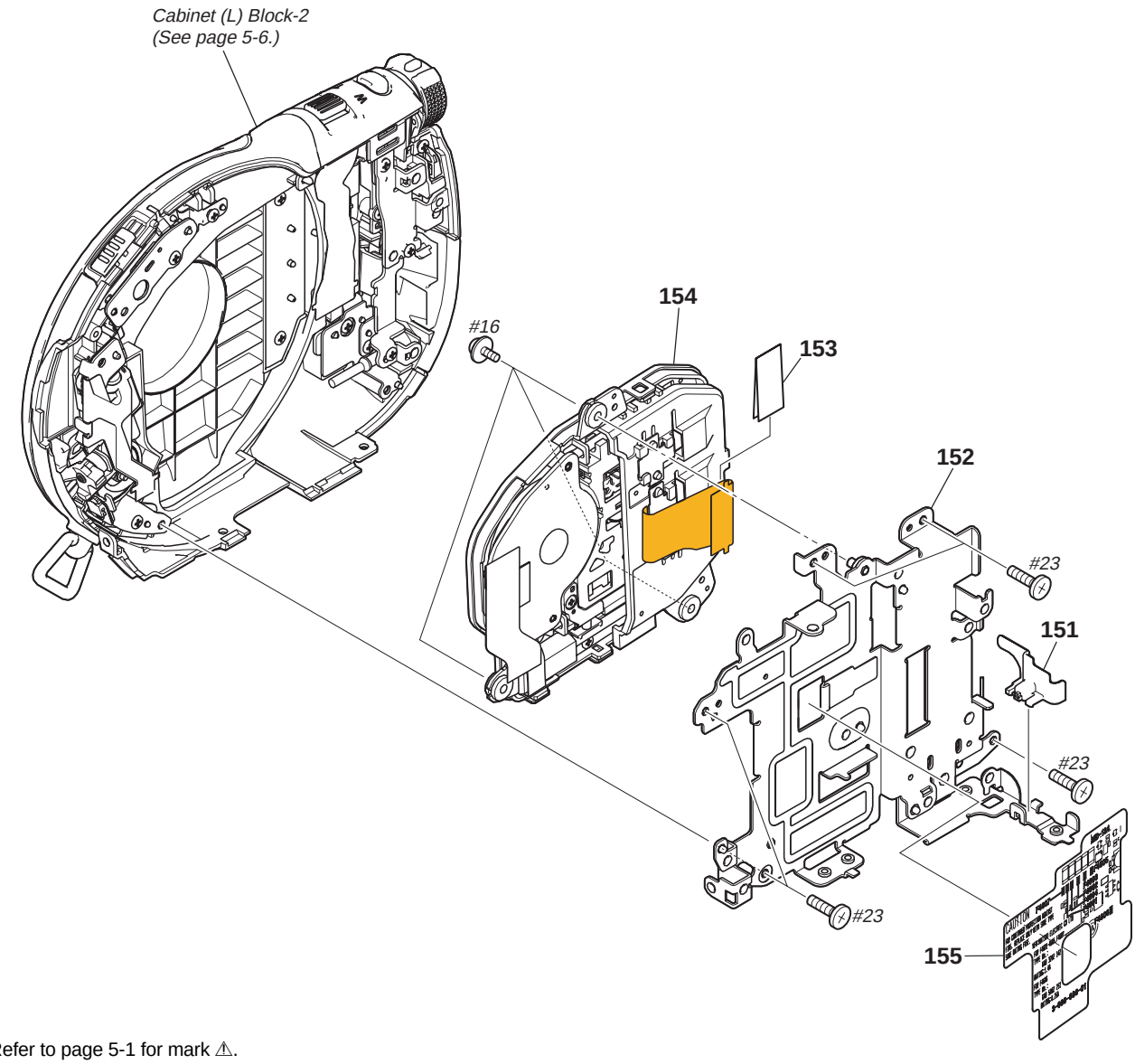


Note: Refer to page 2-4 “Note” when changing the MD-134 board and the VC-478 board.

Note: **MD-134基板とVC-478基板の交換時は2-4ページの “Note” を参照してください。**

Ref. No.	Part No.	Description
101	1-870-991-11	FP-536 BOARD
102	1-870-994-11	FP-539 BOARD
* 103	3-096-301-01	SHEET (252), AFE RADIATION
104	A-1242-080-A	VC-478 BOARD, COMPLETE (SERVICE) (508/908)
104	A-1242-081-A	VC-478 BOARD, COMPLETE (SERVICE) (508E/908E)
104	A-1242-082-A	VC-478 BOARD, COMPLETE (SERVICE) (506E)
104	A-1242-083-A	VC-478 BOARD, COMPLETE (SERVICE) (408/808)
104	A-1242-084-A	VC-478 BOARD, COMPLETE (SERVICE) (408E/808E)
104	A-1242-085-A	VC-478 BOARD, COMPLETE (SERVICE) (406E)
* 105	3-096-298-01	SHEET (252), VC RADIATION
* 106	3-096-299-01	SHEET (227), EX RADIATION
* 107	3-096-290-01	SHEET (MD), INSULATING
108	A-1242-086-A	MD-134 BOARD, COMPLETE (SERVICE)
* 109	3-099-883-01	SHEET, JP
110	1-870-995-11	FP-540 BOARD
111	1-870-990-11	FP-535 BOARD
112	1-870-997-11	FP-542 BOARD
113	X-2176-885-1	PANEL ASSY (227), BT
CN1001	1-794-962-11	CONNECTOR, SQUARE TYPE (USB 5P)
J1001	1-793-995-21	JACK, SUPER SMALL TYPE (REMOTE)
#3	2-660-401-01	SCREW (M1.7), NEW TRU-STAR, P2 (Red)
#10	2-599-475-31	SCREW (M1.7) (Silver)

5-1-4. CABINET (L) BLOCK-1

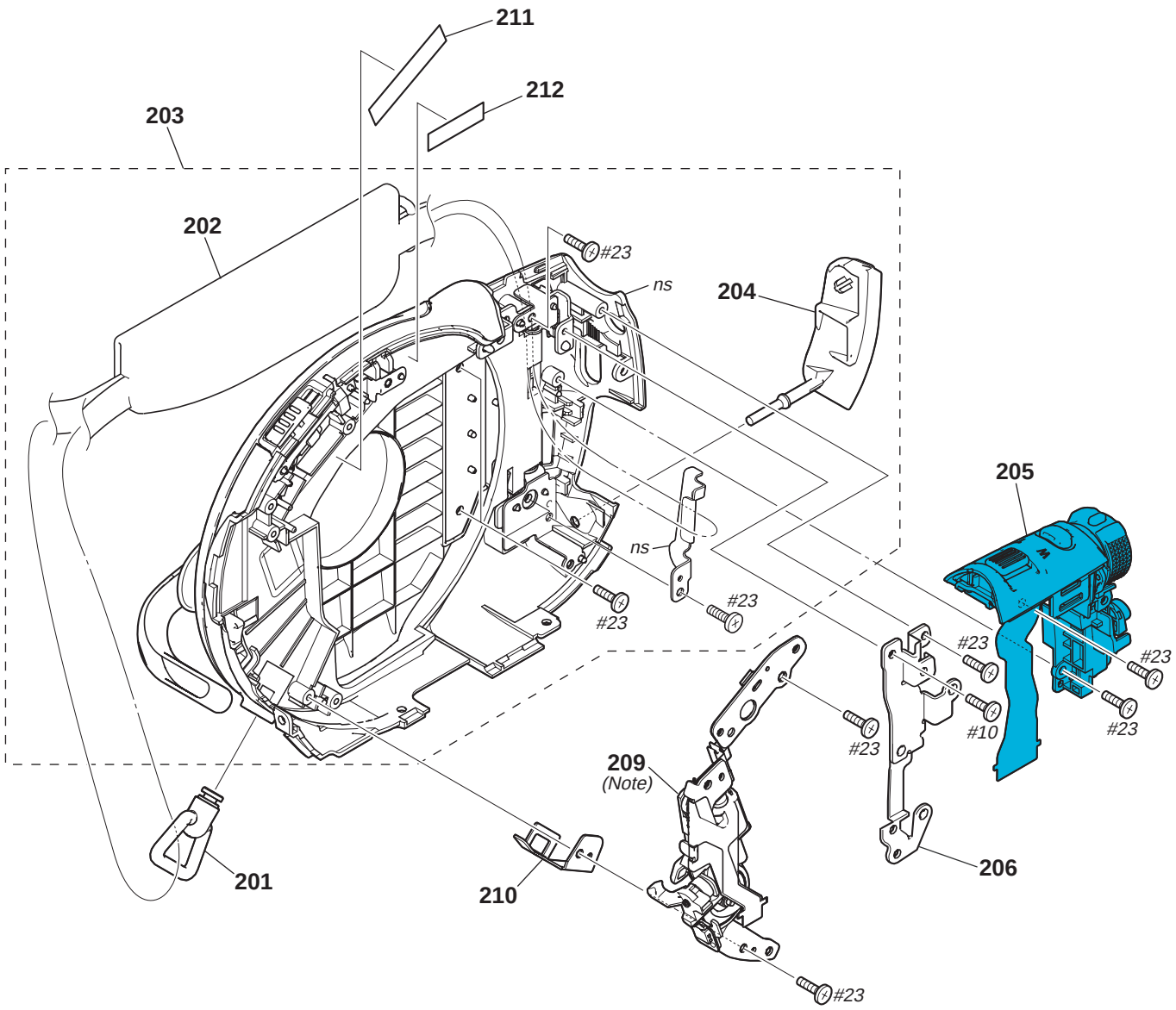


• Refer to page 5-1 for mark ⚠.

Ref. No.	Part No.	Description
* 151	3-096-380-01	GUARD, BT FLEXIBLE
152	X-2176-880-1	FRAME ASSY (227), MD
* 153	3-099-882-01	SHEET (227), OP
⚠154	A-1248-928-A	DDX-U1000 (SERVICE)
155	3-099-886-01	LABEL (252), CAUTION
#16	2-586-337-01	SCREW, MD (Silver)
#23	3-080-204-11	SCREW, TAPPING, P2 (Black)

5-1-5. CABINET (L) BLOCK-2

ns: not supplied



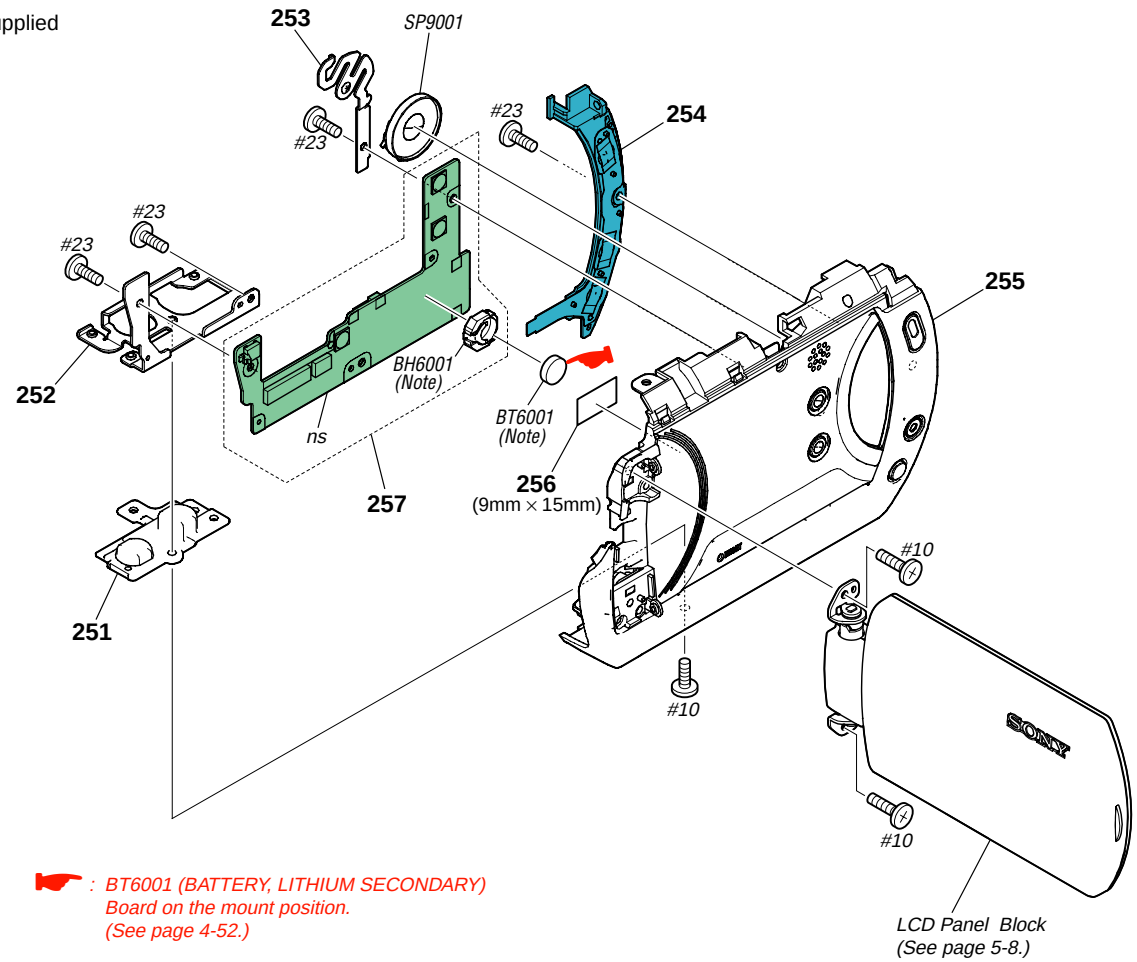
Note: FP-640 FLEXIBLE BOARD is not supplied, but this is included in the EJECT UNIT.

Ref. No.	Part No.	Description
201	3-090-616-01	SHAFT (F), STRAP
202	2-664-928-01	BELT, GRIP
203	X-2176-875-1	CABINET (L) ASSY (227) (J)
203	X-2176-876-1	CABINET (L) ASSY (227) (EXCEPT J)
204	3-096-270-01	COVER (L), JACK
205	1-479-890-31	SWITCH BLOCK, CONTROL (PS25200) (J)
205	1-479-890-41	SWITCH BLOCK, CONTROL (PS25200) (EXCEPT J)

Ref. No.	Part No.	Description
* 206	3-096-292-01	BRACKET (JACK)
209	A-1221-272-A	EJECT UNIT
* 210	3-096-291-01	BRACKET (GRIP SHAFT)
* 211	3-198-146-01	SPACER (A), CABINET (L)
* 212	3-198-147-01	SPACER (B), CABINET (L)
#10	2-599-475-31	SCREW (M1.7) (Silver)
#23	3-080-204-11	SCREW, TAPPING, P2 (Black)

5-1-6. CABINET (R) BLOCK

ns: not supplied



CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

注意
電池の交換は，正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

CAUTION:
256番は、接着紙 (3-076-631-01) を切って使用。

Note: Replace the battery holder (BH6001) together when replacing the lithium battery (BT6001) on the CK-167 board. (The battery holder removed once cannot be used again.)
When mounting these parts, mount new battery holder first and attach new lithium battery next.

Note: CK-167基板のリチウム電池（BT6001）を交換する場合はバッテリホルダ（BH6001）も同時に新品に交換して下さい。（一度使用したバッテリホルダは再使用できません。）
部品取り付けの際は，先にバッテリホルダを取り付けてからリチウム電池を装着して下さい。

CAUTION:
For the part of 256, cut SHEET, ADHESIVE (3-076-631-01) into the desired length and use it.

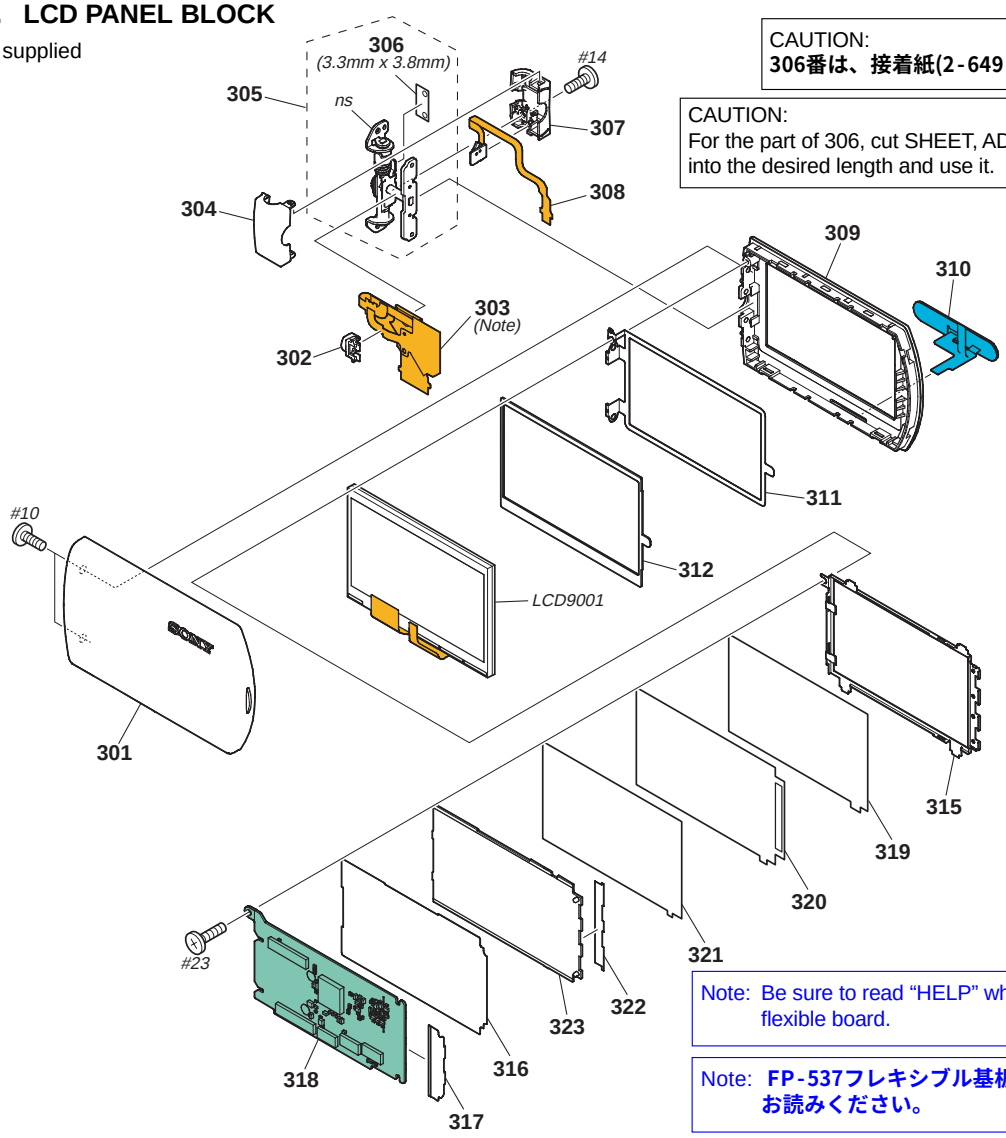
• Refer to page 5-1 for mark ⚠.

Ref. No.	Part No.	Description
251	3-096-430-01	SCREW, TRIPOD
252	3-096-550-01	FRAME (227), BOTTOM
* 253	3-096-425-01	RETAINER (251), SP
254	1-479-995-11	KEY BLOCK, CONTROL (SB22200)
255	X-2176-892-1	CABINET (R) ASSY (227) (508: J)
255	X-2176-893-1	CABINET (R) ASSY (227) (506E/508:US, CND, E, JE/508E/908/908E)
255	X-2176-894-1	CABINET (R) ASSY (226) (406E/408/408E/808/808E)

Ref. No.	Part No.	Description
256	CAUTION	TAPE (W)
257	A-1242-020-A	CK-167 BOARD, COMPLETE
⚠BH6001	1-756-615-41	HOLDER, BATTERY (Note)
⚠BT6001	1-756-134-12	BATTERY, STORAGE, LITHIUM ION (Note)
SP9001	1-825-260-23	SPEAKER (1.6CM)
#10	2-599-475-31	SCREW (M1.7) (Silver)
#23	3-080-204-11	SCREW, TAPPING, P2 (Black)

5-1-7. LCD PANEL BLOCK

ns: not supplied



CAUTION:
306番は、接着紙(2-649-300-01)を切って使用。

CAUTION:
For the part of 306, cut SHEET, ADHESIVE (2-649-300-01) into the desired length and use it.

Note: Be sure to read “HELP” when you install the FP-537 flexible board.

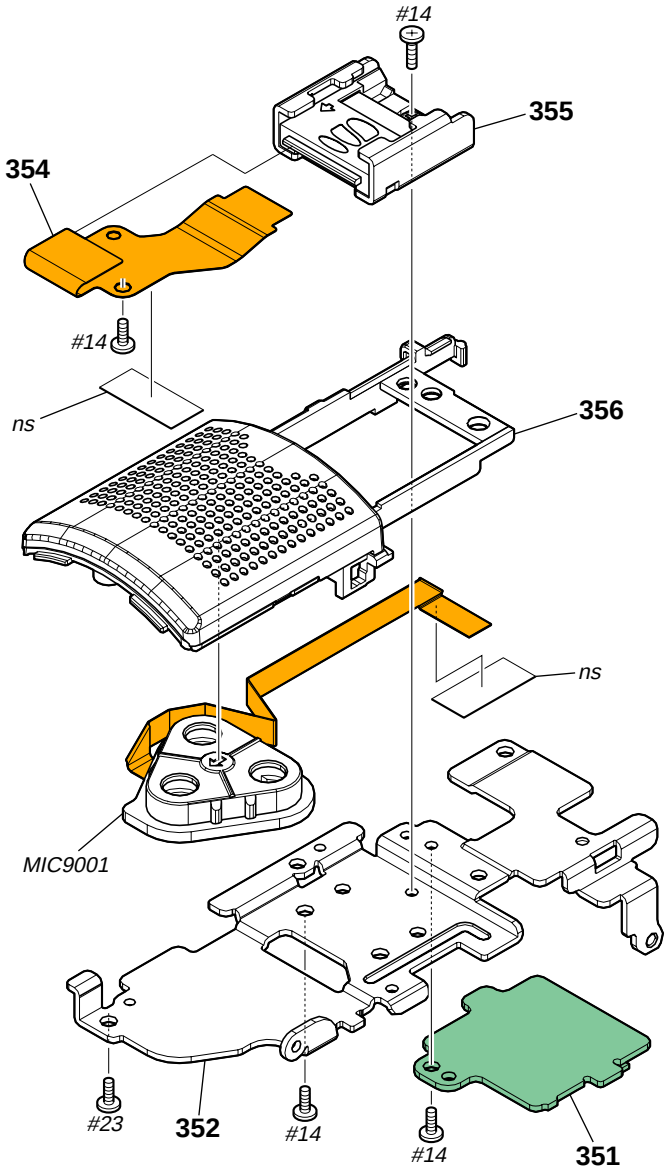
Note: **FP-537フレキシブル基板取付時はヘルプを必ずお読みください。**

Ref. No.	Part No.	Description
301	X-2176-897-1	CABINET (C) ASSY (227), P (508/508E)
301	X-2176-898-1	CABINET (C) ASSY (226), P (408/408E)
301	X-2177-014-1	CABINET (C) ASSY (227), P (908/908E)
301	X-2177-015-1	CABINET (C) ASSY (227), P (506E)
301	X-2177-016-1	CABINET (C) ASSY (226), P (808/808E)
301	X-2177-017-1	CABINET (C) ASSY (226), P (406E)
* 302	3-096-413-01	CLAMP, FLEXIBLE
303	1-870-992-11	FP-537 BOARD
304	3-096-548-01	COVER (U (227)), HINGE
305	X-2108-475-1	HINGE ASSY
306	CAUTION	SHEET, ADHESIVE, HINGE
307	3-096-547-01	COVER (O (227)), HINGE (506E/508/508E/908/908E)
307	3-096-547-11	COVER (O (227)), HINGE (406E/408/408E/808/808E)
308	A-1239-340-A	FP-546 BOARD, COMPLETE
309	3-096-543-01	CABINET (M (227)), P (508:J)
309	3-096-543-11	CABINET (M (227)), P (EXCEPT 508:J)

Ref. No.	Part No.	Description
310	1-479-930-11	SWITCH BLOCK, CONTROL (SW22700)
311	3-096-545-01	PLATE (227), P GROUND
* 312	2-672-277-01	CUSHION, TP
315	2-887-999-01	FRONT FRAME (2.7J)
316	2-894-347-01	REFLECTION SHEET (2.7J)
* 317	2-638-780-01	CLIP
318	A-1242-019-A	PD-324 BOARD, COMPLETE
319	2-666-802-01	PRISM SHEET V (2.7)
320	2-666-803-01	PRISM SHEET H (2.7)
321	2-666-804-01	DIFFUSION SHEET (2.7)
322	2-666-807-02	AG SHEET (2.7)
323	2-666-801-01	LIGHT GUIDE (2.7)
LCD9001	A-1202-059-A	TP BLOCK ASSY (27ESTMG07)
#10	2-599-475-31	SCREW (M1.7) (Silver)
#14	2-599-475-11	SCREW (M1.7) (Silver)
#23	3-080-204-11	SCREW, TAPPING, P2 (Black)

5-1-8. SHOE BLOCK

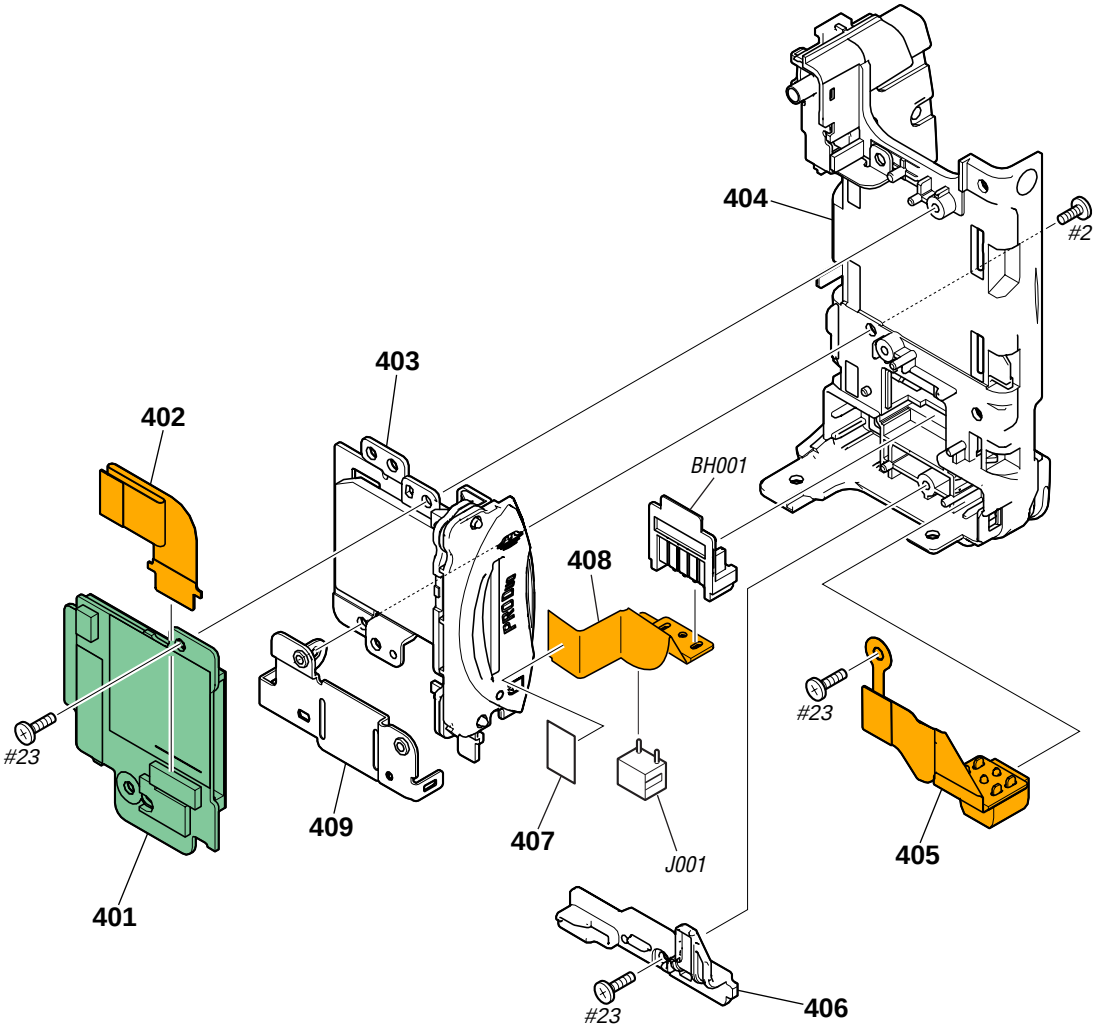
ns: not supplied



Ref. No.	Part No.	Description
351	A-1242-016-A	MA-446 BOARD, COMPLETE
352	3-096-319-01	FRAME, SHOE
354	1-870-988-11	FP-533 BOARD
355	1-818-890-11	CONNECTOR, EXTERNAL (HOT SHOE)
356	X-2176-883-1	GRILLE ASSY (227), MICROPHONE

Ref. No.	Part No.	Description
MIC9001	1-542-711-11	MICROPHONE UNIT
#14	2-599-475-11	SCREW (M1.7) (Silver)
#23	3-080-204-11	SCREW, TAPPING, P2 (Black)

5-1-9. BT PANEL BLOCK



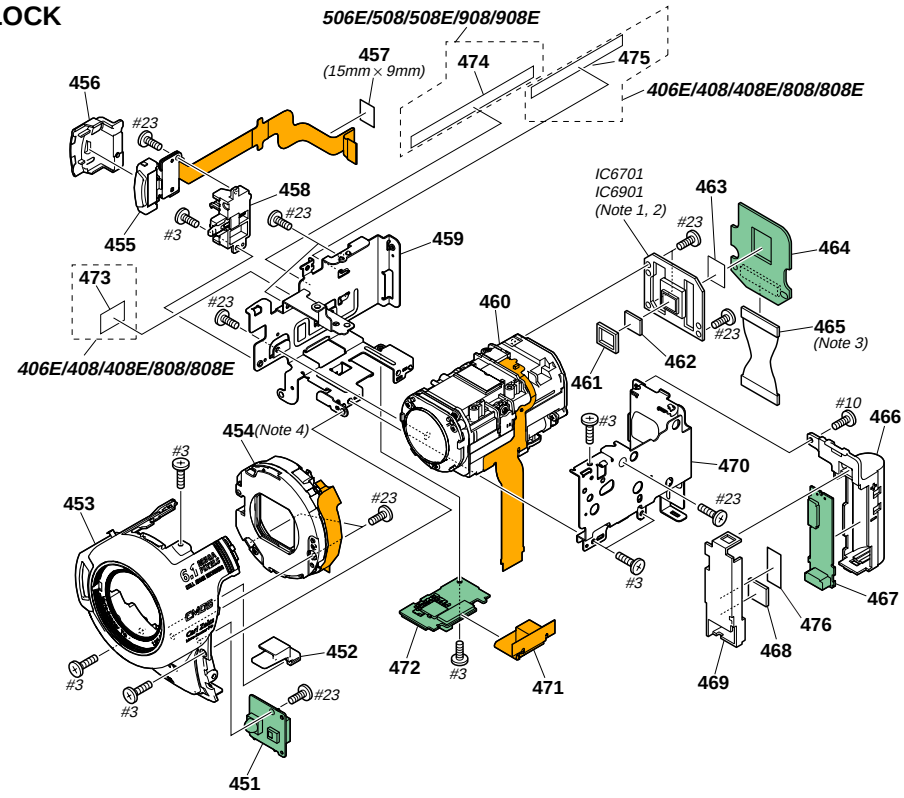
• Refer to page 5-1 for mark ⚠.

Ref. No.	Part No.	Description
401	A-1242-015-A	MS-351 BOARD, COMPLETE
402	1-870-998-11	FP-543 BOARD
403	X-2176-886-1	HOLDER ASSY (227), MS
404	X-2176-885-1	PANEL ASSY (227), BT
405	A-1242-023-A	FP-531 BOARD, COMPLETE
* 406	3-096-336-01	RETAINER, BT JACK
* 407	3-096-312-01	SHEET, BT
408	1-870-996-11	FP-541 BOARD
* 409	3-096-335-01	RETAINER, BT TERMINAL
⚠BH001	1-780-064-21	BATTERY TERMINAL BOARD
⚠J001	1-815-792-11	CONNECTOR, DC-IN (7.2V)
#2	2-635-562-31	SCREW (M1.7) (Black)
#23	3-080-204-11	SCREW, TAPPING, P2 (Black)

HARDWARE LIST

5-1-10. LENS BLOCK

ns: not supplied



Note 1:	**IC6701と IC6901は交換対象ではありませんが、CMOS部組に含まれます。**
Note 2:	**イメージャの交換時は4-5ページの “イメージャ交換時の注意” を必ずお読みください。**
Note 3:	**ハーネスの交換時は2-1ページの “Note for disconnecting the harness” を参照にしてください。**
Note 4:	**FP-712 FLEXIBLE BOARD は交換対象ではありませんが、LENS BARRIER UNIT に含まれます。**

Note 1:	IC6701 and IC6901 is not supplied, but this is included in CMOS block assy.
Note 2:	Be sure to read “Precuations for Replacement of Imager” on page 4-4 when changing the imager.
Note 3:	Refer to page 2-1 “Note for disconnecting the harness” when changing the harness.
Note 4:	FP-712 FLEXIBLE BOARD is not supplied, but this is included in the LENS BARRIER UNIT.

• Refer to page 5-1 for mark ⚠.

Ref. No.	Part No.	Description
451	A-1242-018-A	FR-260 BOARD, COMPLETE
* 452	3-096-381-01	CLAMP, LB FLEXIBLE
453	X-2176-890-1	PANEL ASSY (227), F (506E/508/508E/908/908E)
453	X-2176-891-1	PANEL ASSY (226), F (406E/408/408E/808/808E)
454	A-1217-971-A	LENS BARRIER UNIT
⚠ 455	1-479-888-21	FLASH UNIT (FL25200)
* 456	3-096-382-01	COVER, STROBOSCOPE
457	COUTION	TAPE (W)
458	X-2176-859-1	HOLDER ASSY, ST
* 459	3-096-383-01	FRAME (L (251)), LENS (406E/408/408E/808/808E)
459	3-096-532-01	FRAME (L (227)), LENS (506E/508/508E/908/908E)
460	8-848-825-01	DEVICE, LENS LSV-942C (406E/408/408E/808/808E)
460	A-1227-735-A	DEVICE, LENS LSV-1190A (506E/508/508E/908/908E)
461	2-629-086-01	RUBBER (871), SEAL (406E/408/408E/808/808E)
461	2-698-010-01	RUBBER (1190), SEAL (506E/508/508E/908/908E)
462	1-788-382-11	OPTICAL FILTERBLOCK (OFB-03-26) (406E/408/408E/808/808E)
462	1-788-558-11	FILTER BLOCK, OPTICAL (506E/508/508E/908/908E)
* 463	3-096-389-01	SHEET (252), CD RADIATION
464	A-1231-932-A	CM-076 BOARD, COMPLETE (406E/408/408E/808/808E)
464	A-1237-309-A	CM-077 BOARD, COMPLETE (SERVICE) (506E/508/508E/908/908E)

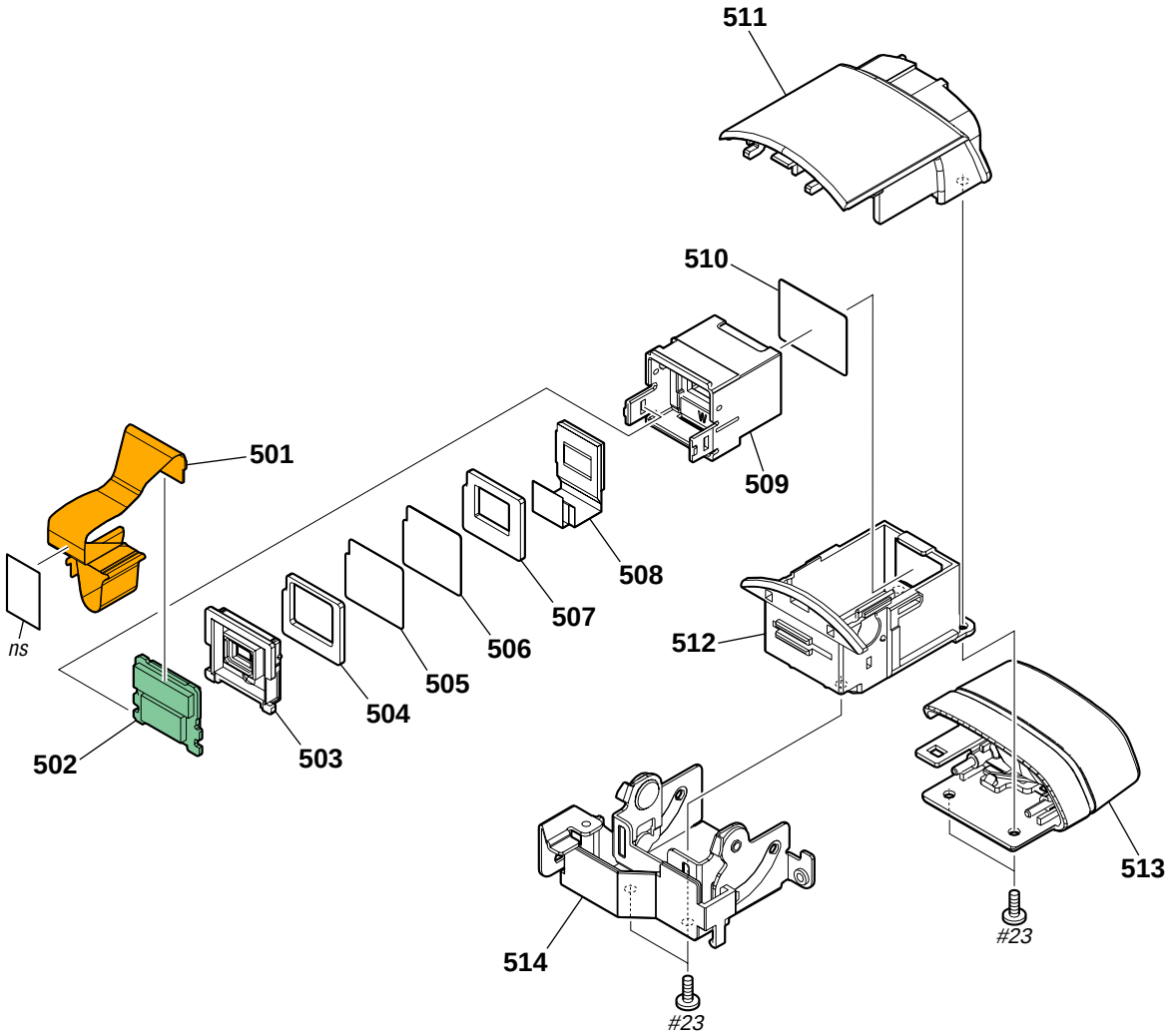
Ref. No.	Part No.	Description
465	1-965-256-61	HARNESS (COAXIAL CABLE) (506E/508/508E/908/908E)
465	1-965-258-61	HARNESS (HN-046) (406E/408/408E/808/808E)
* 466	3-096-303-01	HOLDER (F), CONDENSER
467	A-1242-017-A	ST-154 BOARD, COMPLETE
468	1-481-251-11	CORE, FERRITE
* 469	3-096-305-01	HOLDER (R), CONDENSER
* 470	3-096-384-01	HEAT SINK (252), CM (506E/508/508E/908/908E)
* 470	3-096-385-01	HEAT SINK (251), CM (406E/408/408E/808/808E)
471	1-870-985-11	FP-530 BOARD
472	A-1239-331-A	LD-215 BOARD, COMPLETE (406E/408/408E/808/808E)
472	A-1239-332-A	LD-216 BOARD, COMPLETE (506E/508/508E/908/908E)
* 473	3-198-150-01	SPACER (Y), LENS FRAME (406E/408/408E/808/808E)
* 474	3-198-148-01	CUSHION (R), LENS FRAME (506E/508/508E/908/908E)
* 475	3-198-149-01	CUSHION (Y), LENS FRAME (406E/408/408E/808/808E)
476	3-941-343-01	TAPE (A)
IC6701	A-1209-688-A	CMOS BLOCK ASSY (506E/508/508E/908/908E) (Note 1, 2)
IC6901	A-1172-742-A	CMOS BLOCK ASSY (406E/408/408E/808/808E) (Note 1, 2)
#3	2-660-401-01	SCREW (M1.7), NEW TRU-STAR, P2 (Red)
#10	2-599-475-31	SCREW (M1.7) (Silver)
#23	3-080-204-11	SCREW, TAPPING, P2 (Black)

CAUTION:
457番は，T0.25ヒメロン（3-076-631-01）を切って使用。

CAUTION:
For the part of 457, cut WOVEN (T0.25), FABRIC NON (3-076-631-01) into the desired length and use it.

5-1-11. EVF BLOCK

ns: not supplied



Ref. No.	Part No.	Description
501	1-870-989-11	FP-534 BOARD
502	A-1242-021-A	BL-004 BOARD, COMPLETE
503	2-664-672-01	GUIDE, LAMP
* 504	2-638-819-01	CUSHION, LCD
* 505	2-638-818-01	ILLUMINATOR
* 506	2-638-816-01	PLATE (TFT), DEFLECTION
507	2-664-671-01	SPACER, LCD
508	8-753-241-14	LCX076AKE-1

Ref. No.	Part No.	Description
* 509	2-699-236-01	CABINET (222), INNER
* 510	2-668-134-01	PANEL (CF), POLARIZATION
511	3-096-526-01	CABINET (UPPER (227)), VF
512	3-096-358-11	CABINET (LOWER), VF
513	X-2176-888-1	EYE CUP ASSY (227)
514	X-2176-889-1	FRAME ASSY (227), VF
#23	3-080-204-11	SCREW, TAPPING, P2 (Black)

5-2. ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description			
	A-1242-021-A	BL-004 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C5901	1-125-777-11	CERAMIC CHIP	0.1MF B		1005
C5902	1-165-908-11	CERAMIC	1000000PF B		1608
		< CONNECTOR >			
* CN5901	1-816-648-51	FFC/FPC CONNECTOR (LIF) 20P			
* CN5902	1-817-560-71	CONNECTOR, FPC (ZIP) 21P			
		< DIODE >			
* D5901	6-501-591-01	DIODE NESW007AT-T099 (EVF BACKLIGHT)			
D5902	6-500-941-01	DIODE MAZS056008S0			
	A-1242-020-A	CK-167 BOARD, COMPLETE			
		**********			
(BT6001 (lithium battery) is not included in CK-167 complete board.)					
		< BATTERY HOLDER >			
⚠ BH6001	1-756-615-41	HOLDER, BATTERY (Note)			
		<BATTERY>			
⚠ BT6001	1-756-134-12	BATTERY, STORAGE, LITHIUM (Note)			
		< CONNECTOR >			
CN6001	1-778-506-21	PIN, CONNECTOR (PC BOARD) 2P			
* CN6003	1-819-934-61	CONNECTOR, FPC (ZIF) 39P			
* CN6004	1-816-654-51	FFC/FPC CONNECTOR (LIF) 6P			
* CN6005	1-816-654-51	FFC/FPC CONNECTOR (LIF) 6P			
* CN6006	1-816-650-51	FFC/FPC CONNECTOR (LIF) 24P			
		< DIODE >			
D6004	8-719-056-54	DIODE MAZS068008S0			
		< RESISTOR >			
R6001	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
R6002	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R6003	1-218-970-11	RES-CHIP	27K	5%	1/16W
		< SWITCH >			
S6001	1-771-138-82	SWITCH, KEY BOARD (RESET)			
S6003	1-771-138-82	SWITCH, KEY BOARD (DISP/BATT INFO)			
S6006	1-771-138-82	SWITCH, KEY BOARD (WIDE SELECT)			
S6007	1-786-148-11	SWITCH, PUSH (1 KEY) (PANEL OPEN/CLOSE)			

Electrical parts list of the CM-076 and CM-077 board is not shown. Pages 5-14 to 5-15 is not shown.

• Refer to page 5-1 for mark ⚠.

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

注意
電池の交換は，正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

Note: Replace the battery holder (BH6001) together when replacing the lithium battery (BT6001) on the CK-167 board. (The battery holder removed once cannot be used again.)
When mounting these parts, mount new battery holder first and attach new lithium battery next.

Note: CK-167基板のリチウム電池（BT6001）を交換する場合はバッテリホルダ（BH6001）も同時に新品に交換して下さい。（一度使用したバッテリホルダは再使用できません。）部品取り付けの際は，先にバッテリホルダを取り付けてからリチウム電池を装着して下さい。

Ref. No.	Part No.	Description
	1-870-985-11	FP-530 BOARD **********
	A-1242-023-A	FP-531 BOARD, COMPLETE **********
		< CONNECTOR >
CN002	1-815-794-13	CONNECTOR (A/V OUT)
	1-870-988-11	FP-533 BOARD **********
	1-870-989-11	FP-534 BOARD **********
	1-870-990-11	FP-535 FLEXIBLE BOARD **********
		(CN1001 and J1001 are not included in the FP-535 flexible board.)
		< CONNECTOR >
CN1001	1-794-962-11	CONNECTOR, SQUARE TYPE (USB 5P)
		< JACK >
J1001	1-793-995-21	JACK, SUPER SMALL TYPE (REMOTE)
	1-870-991-11	FP-536 BOARD **********
	1-870-992-11	FP-537 BOARD **********
	1-870-994-11	FP-539 BOARD **********
	1-870-995-11	FP-540 BOARD **********
	1-870-996-11	FP-541 FLEXIBLE BOARD **********
		(BH001 and J001 are not included in the FP-541 flexible board.)
		< BATTERY TERMINAL >
⚠BH001	1-780-064-21	BATTERY TERMINAL BOARD
		< CONNECTOR >
⚠J001	1-815-792-11	CONNECTOR, DC-IN (7.2V)
	1-870-997-11	FP-542 BOARD **********
	1-870-998-11	FP-543 BOARD **********

Ref. No.	Part No.	Description
	A-1239-340-A	FP-546 FLEXIBLE BOARD, COMPLETE **********
		(S001 is not supplied, but this is included in the FP-546 flexible complete board.)
		< SWITCH >
S001	(Not supplied)	SWITCH, DETECTION (SMD) (PANEL REVERSE DETECT)
	A-1242-018-A	FR-260 BOARD, COMPLETE **********
		< CONNECTOR >
CN6501	1-779-332-51	CONNECTOR, FFC/FPC 16P
* CN6502	1-816-643-51	FFC/FPC CONNECTOR (LIF) 10P
		< DIODE >
D6501	8-719-073-01	DIODE MA111-(K8).S0
D6503	6-500-512-01	DIODE CL-330IRS-X-TU (IR EMITTER/NIGHTSHOT)
D6504	6-500-776-01	DIODE MAZW068H0LS0
		< IC >
IC6501	6-600-163-01	IC RS-770 (ℝ)
		< TRANSISTOR >
Q6501	6-550-384-01	TRANSISTOR DTC123JMT2L
		< RESISTOR >
R6510	1-218-990-81	CONDUCTOR, CHIP (1005)
R6513	1-216-295-91	CONDUCTOR, CHIP (2012)
R6514	1-218-941-11	RES-CHIP 100 5% 1/16W

Electrical parts list of the LD-215 and LD-216 board is not shown. Pages 5-17 to 5-19 is not shown.

• Refer to page 5-1 for mark ⚠.

MA-446

Ref. No.	Part No.	Description			
	A-1242-016-A	MA-446 BOARD, COMPLETE			
		**********			
		< CONNECTOR >			
* CN7601	1-816-654-51	FFC/FPC CONNECTOR (LIF) 6P			
* CN7602	1-816-645-51	FFC/FPC CONNECTOR (LIF) 14P			
* CN7603	1-819-780-61	CONNECTOR, FPC (ZIF) 27P			
		< DIODE >			
D7601	8-719-056-54	DIODE MAZS068008SO			
D7602	8-719-084-17	DIODE EMZ6.8ET2R			
D7603	8-719-084-17	DIODE EMZ6.8ET2R			
D7604	8-719-084-17	DIODE EMZ6.8ET2R			
		< RESISTOR >			
R7602	1-218-990-81	CONDUCTOR, CHIP (1005)			
R7603	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R7605	1-218-990-81	CONDUCTOR, CHIP (1005)			
R7606	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R7608	1-218-990-81	CONDUCTOR, CHIP (1005)			
R7609	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R7612	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
R7613	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
		< SWITCH >			
S7601	1-786-148-11	SWITCH, PUSH (1 KEY) (NIGHTSHOT)			

Electrical parts list of the MD-134 board is not shown.
Pages 5-21 to 5-25 is not shown.

Ref. No.	Part No.	Description			
	A-1242-015-A	MS-351 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C7403	1-125-777-11	CHIP CERAMIC 0.1MF B	1005		
C7404	1-164-935-11	CERAMIC CHIP 470PF	10%	50V	
C7405	1-164-935-11	CERAMIC CHIP 470PF	10%	50V	
		< CONNECTOR >			
* CN7401	1-819-990-21	MEMORY STICK DUO CONNECTOR 10P			
* CN7402	1-817-563-71	CONNECTOR, FPC (ZIF) 31P			
* CN7403	1-816-645-51	FFC/FPC CONNECTOR (LIF) 14P			
		< DIODE >			
D7401	6-501-216-01	DIODE CL-271HR-C-TS			
		< FERRITE BEAD >			
FB7402	1-400-927-31	BEAD, FERRITE (1005)			
FB7403	1-400-927-31	BEAD, FERRITE (1005)			
FB7408	1-400-833-21	SMD EMI FERRITE			
		< RESISTOR >			
R7402	1-218-943-11	RES-CHIP	150	5%	1/16W
R7403	1-218-943-11	RES-CHIP	150	5%	1/16W
R7404	1-218-943-11	RES-CHIP	150	5%	1/16W
R7405	1-218-943-11	RES-CHIP	150	5%	1/16W
R7407	1-218-990-81	CONDUCTOR, CHIP (1005)			
		< VARISTOR >			
VD7402	1-805-774-21	VARISTOR, CHIP			
VD7403	1-805-774-21	VARISTOR, CHIP			
VD7407	1-805-774-21	VARISTOR, CHIP			

	A-1242-019-A	PD-324 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C6101	1-100-581-81	CERAMIC CHIP 0.0047uF	10%	50V	
C6102	1-100-581-81	CERAMIC CHIP 0.0047uF	10%	50V	
C6103	1-165-989-11	CERAMIC CHIP 10uF	10%	6.3V	
C6105	1-127-895-91	TANTAL. CHIP 22uF	20%	4V	
C6107	1-165-884-91	CERAMIC CHIP 2.2uF	10%	6.3V	
C6108	1-125-777-11	CAP, CHIP CERAMIC	0.1MF B	1005	
C6109	1-164-739-11	CERAMIC CHIP 560PF	5%	50V	
C6111	1-125-777-11	CAP, CHIP CERAMIC	0.1MF B	1005	
C6112	1-100-786-91	TANTAL. CHIP 22uF	20%	6.3V	
C6113	1-100-567-81	CERAMIC CHIP 0.01uF	10%	25V	
C6114	1-100-567-81	CERAMIC CHIP 0.01uF	10%	25V	
C6115	1-100-567-81	CERAMIC CHIP 0.01uF	10%	25V	
C6116	1-112-298-91	CERAMIC CHIP 1uF	10%	16V	
C6117	1-112-298-91	CERAMIC CHIP 1uF	10%	16V	
C6119	1-127-760-11	CAP, CHIP CERAMIC	4.7MF B	2012	
C6120	1-165-989-11	CERAMIC CHIP 10uF	10%	6.3V	
C6121	1-125-777-11	CAP, CHIP CERAMIC	0.1MF B	1005	
C6123	1-165-908-11	CAP, CERAMIC 1000000PF	B	1608	
C6124	1-100-567-81	CERAMIC CHIP 0.01uF	10%	25V	
C6125	1-165-908-11	CAP, CERAMIC 1000000PF	B	1608	
C6126	1-125-777-11	CAP, CHIP CERAMIC	0.1MF B	1005	
		< CONNECTOR >			
CN6101	1-785-905-51	FFC/CONNECTOR, FPC (ZIF) 24P			
CN6102	1-794-322-51	FFC/CONNECTOR, FPC (ZIF) 6P			
CN6104	1-816-180-71	CONNECTOR, FPC (ZIF) 6P			
CN6105	1-785-905-51	FFC/CONNECTOR, FPC (ZIF) 24P			
		< DIODE >			
D6105	6-500-941-01	DIODE MAZS056008S0			
* D6106	6-501-597-01	DIODE NSSW008DT-T108			
* D6107	6-501-597-01	DIODE NSSW008DT-T108			
* D6108	6-501-597-01	DIODE NSSW008DT-T108			
		< FERRITE BEAD >			
FB6101	1-400-331-11	FERRITE, EMI (SMD) (1005)			
		< IC >			
IC6102	8-753-229-98	IC CXM3006CR-T4			
		< COIL >			
L6101	1-400-588-11	INDUCTOR, CHIP	10uH (2012)		
L6102	1-400-588-11	INDUCTOR, CHIP	10uH (2012)		
L6103	1-400-588-11	INDUCTOR, CHIP	10uH (2012)		
		< TRANSISTOR >			
Q6101	8-729-427-37	TRANSISTOR XP411F-TXE			
Q6102	8-729-427-67	TRANSISTOR XP421F-TXE			
Q6107	6-550-239-01	TRANSISTOR DTA144EMT2L			
Q6108	6-550-234-01	TRANSISTOR UNR32A300LS0			
Q6109	6-551-184-01	TRANSISTOR MCH6305-TL-E-S			
Q6110	8-729-054-48	TRANSISTOR UP04601008S0			
Q6111	6-550-232-01	TRANSISTOR 2SA2029T2LQ/R			
Q6112	8-729-054-49	TRANSISTOR UP04401008S0			
Q6113	8-729-054-48	TRANSISTOR UP04601008S0			
		< RESISTOR >			
R6101	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R6102	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R6104	1-218-990-81	CONDUCTOR, CHIP (1005)			
R6105	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R6109	1-218-975-11	RES-CHIP	68K	5%	1/16W
R6110	1-218-949-11	RES-CHIP	470	5%	1/16W
R6112	1-208-934-11	METAL CHIP	91K	0.50%	1/16W
R6115	1-208-911-11	METAL CHIP	10K	0.50%	1/16W
R6122	1-218-965-11	RES, CHIP	10K		
R6130	1-208-898-81	METAL CHIP	3K	0.50%	1/16W
R6132	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6133	1-218-977-11	RES-CHIP	100K	5%	1/16W
R6134	1-208-927-11	METAL CHIP	47K	0.50%	1/16W
R6135	1-218-981-11	RES-CHIP	220K	5%	1/16W
R6136	1-208-927-11	METAL CHIP	47K	0.50%	1/16W
R6137	1-218-978-11	RES-CHIP	120K	5%	1/16W
R6138	1-218-977-11	RES-CHIP	100K	5%	1/16W
R6139	1-208-699-11	METAL CHIP	4.7K	0.50%	1/16W
R6140	1-208-691-11	METAL CHIP	2.2K	0.50%	1/16W
R6141	1-208-683-11	METAL CHIP	1K	0.50%	1/16W

Ref. No.	Part No.	Description			
R6142	1-208-691-11	METAL CHIP	2.2K	0.50%	1/16W
R6143	1-218-977-11	RES-CHIP	100K	5%	1/16W
R6144	1-211-969-11	METAL CHIP	10	0.50%	1/10W
R6145	1-218-989-11	RES, CHIP	1M		
R6152	1-218-990-81	CONDUCTOR, CHIP (1005)			
R6153	1-218-990-81	CONDUCTOR, CHIP (1005)			
R6154	1-218-990-81	CONDUCTOR, CHIP (1005)			
R6155	1-216-864-11	SHORT CHIP	0		
	A-1242-017-A	ST-154 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C5201	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5202	1-125-889-91	CAP, CHIP CERAMIC		2.2MF B	2012
C5203	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C5204	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
* C5206	1-112-730-11	ELECT	70uF	99%	330V
		< CONNECTOR >			
* CN5201	1-816-647-51	FFC/FPC CONNECTOR (LIF) 18P			
CN5202	1-779-331-51	CONNECTOR, FFC/FPC 14P			
		< DIODE >			
D5201	6-501-096-01	DIODE	CRF02 (TE85R)		
⚠ D5202	6-501-096-01	DIODE	CRF02 (TE85R)		
D5204	8-719-083-91	DIODE	EDZ TE61 6.8B		
		< IC >			
⚠ IC5201	6-707-554-01	IC	TPS65552DGQR		
		< COIL >			
L5201	1-412-027-11	INDUCTOR	2.2uH		
		< TRANSISTOR >			
⚠* Q5201	6-551-447-01	TRANSISTOR	TIG022TS-S-TL-E		
		< RESISTOR >			
R5201	1-208-947-11	METAL CHIP	330K	0.50%	1/16W
R5202	1-208-935-11	METAL CHIP	100K	0.50%	1/16W
R5203	1-216-864-11	SHORT CHIP	0		
R5204	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5205	1-216-809-11	METAL CHIP	100	5%	1/10W
R5206	1-218-989-11	RES, CHIP	1M		
		< TRANSFORMER >			
⚠ T5201	1-443-568-21	TRANSFORMER, D.C.-D.C.CONVERTER			

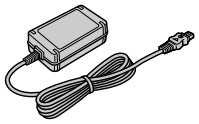
Electrical parts list of the VC-478 board is not shown.
Pages 5-28 to 5-32 is not shown.

• Refer to page 5-1 for mark ⚠.

• EXCEPT J MODEL

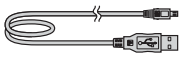
Checking supplied accessories.

to J MODEL



AC Adaptor
(AC-L200/L200B)
⚠ 1-479-285-21

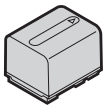
Power Cord
⚠ 1-555-074-91 (AUS)
⚠ 1-782-476-71 (CH)
⚠ 1-828-050-31 (JE)
⚠ 1-823-945-41 (US, CND)
⚠ 1-823-947-71 (KR)
⚠ 1-827-269-31 (UK, HK)
⚠ 1-827-826-41 (AEP, NE, E: PAL)
⚠ 1-830-518-41 (E: NTSC)



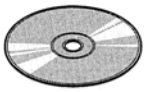
USB cable
1-829-868-31

A/V connecting Cable
1-823-156-51

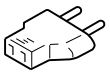
Wireless Remote Commander
RMT-835
1-478-496-61



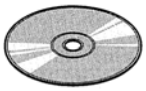
Rechargeable Battery Pack
NP-FH60
⚠ A-1201-666-A (US, CND)
⚠ A-1201-667-A
(EXCEPT US, CND, CH)
⚠ A-1201-668-A (CH)



CD-ROM
“Handycam Application Software”
3-093-590-02



Conversion (2P) Adaptor
⚠ 1-569-007-12 (E: NTSC, JE)



DVD-ROM
“ENJOY HANDYCAM”
3-093-691-01 (KR)
ENGLISH / KOREAN / JAPANESE
3-093-691-11 (US, CND, E)
ENGLISH / FRENCH / SPANISH / PORTUGUESE
3-093-691-21 (UK, NE, EE)
ENGLISH / RUSSIAN / GERMAN
3-093-691-31 (AEP)
ENGLISH / SPANISH / PORTUGUESE / ITALIAN
3-093-691-41 (AEP)
ENGLISH / FRENCH / PORTUGUESE / DUTCH
3-093-691-61 (E, AUS, HK, CH)
ENGLISH / FRENCH / SIMPLIFIED CHINESE for CHINA / TRADITIONAL CHINESE for HONG KONG
3-093-691-71 (E)
ENGLISH / TRADITIONAL CHINESE for TAIWAN / SPANISH / PORTUGUESE

Conversion (2P) Adaptor
⚠ 1-569-008-12 (E: PAL)

Other accessories

2-319-640-11 MANUAL, INSTRUCTION (ENGLISH)
(DVD408/DVD508) (US, CND, JE)
2-319-640-21 MANUAL, INSTRUCTION (FRENCH)
(DVD408/DVD508) (CND)
2-319-640-31 MANUAL, INSTRUCTION (SPANISH)
(DVD408/DVD508) (E, JE)
2-319-640-51 MANUAL, INSTRUCTION (TRADITIONAL CHINESE)
(DVD808/DVD908) (E)
2-319-640-61 MANUAL, INSTRUCTION (KOREAN)
(DVD408/DVD508/DVD808/DVD908) (KR, JE)

2-319-641-11 MANUAL, INSTRUCTION (ENGLISH)
(DVD406E/DVD408E/DVD506E/DVD508E/DVD808E/DVD908E)
(AEP, UK, E, HK, AUS, JE)
2-319-641-21 MANUAL, INSTRUCTION (FRENCH)
(DVD406E/DVD506E/DVD808E/DVD908E) (AEP)
2-319-641-31 MANUAL, INSTRUCTION (GERMAN)
(DVD406E/DVD506E) (AEP)
2-319-641-41 MANUAL, INSTRUCTION (DUTCH)
(DVD406E/DVD506E) (AEP)
2-319-641-51 MANUAL, INSTRUCTION (SPANISH)
(DVD406E/DVD506E) (AEP)

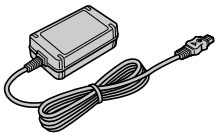
2-319-641-71 MANUAL, INSTRUCTION (ITALIAN)
(DVD406E/DVD506E) (AEP)
2-319-641-81 MANUAL, INSTRUCTION (GREEK)
(DVD406E/DVD506E) (AEP)
2-319-641-91 MANUAL, INSTRUCTION (RUSSIAN)
(DVD408E/DVD508E) (NE, JE)
2-319-642-11 MANUAL, INSTRUCTION (SWEDISH)
(DVD408E/DVD508E) (NE)
2-319-642-21 MANUAL, INSTRUCTION (DANISH)
(DVD408E/DVD508E) (NE)

2-319-642-31 MANUAL, INSTRUCTION (FINNISH)
(DVD408E/DVD508E) (NE)
2-319-642-41 MANUAL, INSTRUCTION (POLISH)
(DVD406E/DVD506E) (EE)
2-319-642-51 MANUAL, INSTRUCTION (CZECH)
(DVD406E/DVD506E) (EE)
2-319-642-61 MANUAL, INSTRUCTION (HUNGARIAN)
(DVD406E/DVD506E) (EE)
2-319-642-71 MANUAL, INSTRUCTION (SLOVAK)
(DVD406E/DVD506E) (EE)

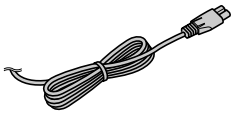
2-319-642-91 MANUAL, INSTRUCTION (SIMPLIFIED CHINENES)
(DVD408E/DVD508E/DVD808E/DVD908E) (E, CH, JE)
3-098-557-41 MANUAL, INSTRUCTION (TRADITIONAL CHINESE)
(DVD808E/DVD908E) (HK)
3-098-557-51 MANUAL, INSTRUCTION (ARABIC)
(DVD808E/DVD908E) (E)
3-098-557-61 MANUAL, INSTRUCTION (PERSIAN)
(DVD808E/DVD908E) (E)

• Refer to page 5-1 for mark ⚠.

• J MODEL
付属品

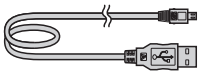


AC **アダプター**
(AC-L200/L200B)
⚠ 1-479-285-21



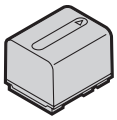
電源コード
⚠ 1-792-549-41

図面番号　**部品コード**　**部品名**
2-319-640-01 取扱説明書



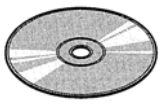
USB **ケーブル**
1-829-868-31

A/V **接続ケーブル**
1-823-156-51

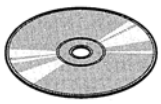


リチャージャブル
バッテリーパック
(NP-FH60)
⚠ **A-1201-665-A**

ワイヤレスリモコン
RMT-835
1-478-496-51



CD-ROM
"Handycam Application Software"
3-093-590-01

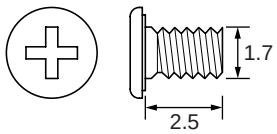


DVD-ROM
"**エンジョイハンディーカム**"
3-093-691-01
（英語、韓国語、日本語）

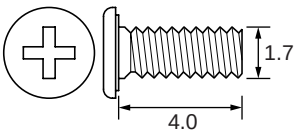
• ⚠**マークについては，5-1ページを参照して下さい。**

HARDWARE LIST (1/4)

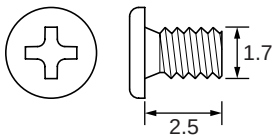
#1: M1.7 X 2.5
(Black)
2-635-562-11



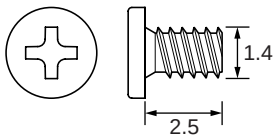
#2: M1.7 X 4.0
(Black)
2-635-562-31



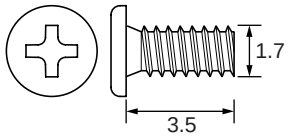
#3: M1.7 X 2.5
(Red)
2-660-401-01



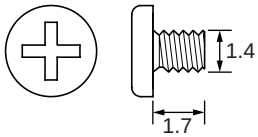
#4: M1.4 X 2.5 (Tapping)
(Dark Silver)
3-348-998-81



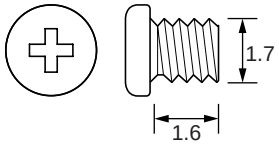
#5: M1.7 X 3.5 (Tapping)
(Black)
3-080-204-01



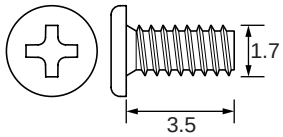
#6: M1.4 X 1.7
(Silver)
2-598-474-01



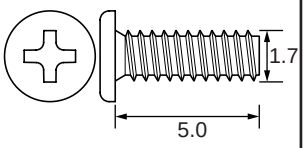
#7: M1.7 X 1.6
(Black)
7-627-552-18



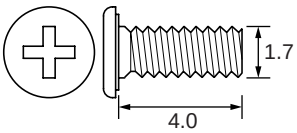
#8: M1.7 X 3.5 (Tapping)
(Silver)
3-078-890-01



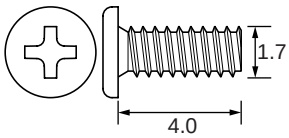
#9: M1.7 X 5.0 (Tapping)
(Silver)
3-078-890-21



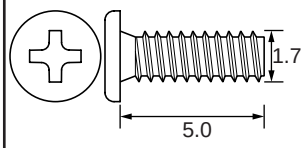
#10: M1.7 X 4.0
(Silver)
2-599-475-31



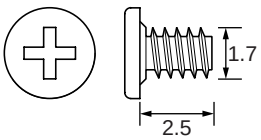
#11: M1.7 X 4.0 (Tapping)
(Silver)
3-078-890-11



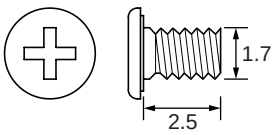
#12: M1.7 X 5.0 (Tapping)
(Black)
3-080-204-21



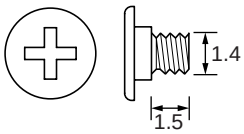
#13: M1.7 X 2.5 (Tapping)
(Silver)
3-085-397-01



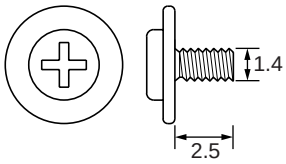
#14: M1.7 X 2.5
(Silver)
2-599-475-11



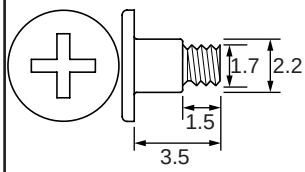
#15: M1.4 X 1.5
(Silver)
3-062-214-01



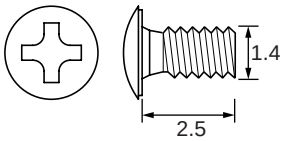
#16: M1.4 X 2.5
(Silver)
2-586-337-01



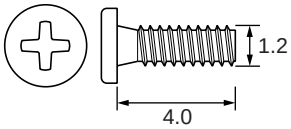
#17: M1.7 X 1.5
(Silver)
2-586-389-01



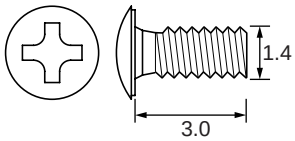
#18: M1.4 X 2.5
(Silver)
2-635-591-21



#19: M1.2 X 4.0 (Tapping)
(Red)
3-086-156-21

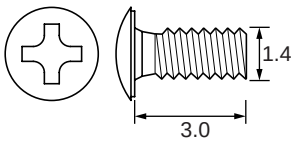


#20: M1.4 X 3.0
(Silver)
2-635-591-31

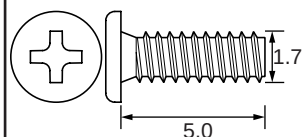


HARDWARE LIST (2/4)

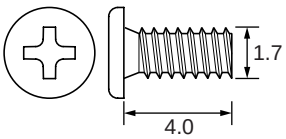
#21: M1.4 X 3.0
(Black)
2-662-396-21



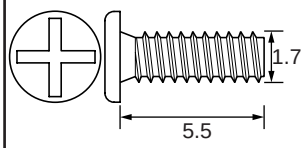
#22: M1.7 X 5.0 (Tapping)
(Silver)
3-083-261-01



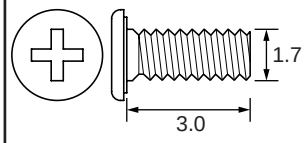
#23: M1.7 X 4.0 (Tapping)
(Black)
3-080-204-11



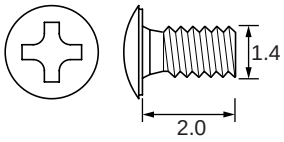
#24: B1.7 X 5.5 (Tapping)
(Black)
4-679-805-11



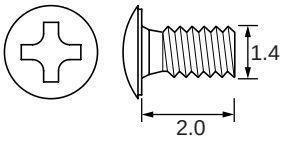
#25: M1.7 X 3.0
(Black)
2-635-562-21



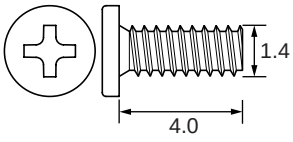
#26: M1.4 X 2.0
(Silver)
2-635-591-11



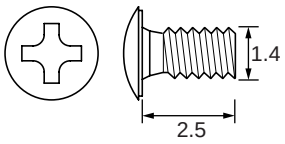
#27: M1.4 X 2.0
(Black)
2-662-396-11



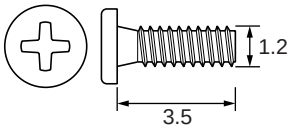
#28: M1.4 X 4.0 (Tapping)
(Dark Silver)
3-348-998-61



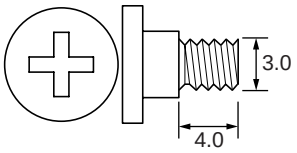
#29: M1.4 X 2.5
(Black)
2-662-396-01



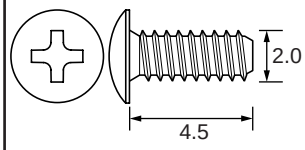
#30: M1.2 X 4.0 (Tapping)
(White)
3-086-156-11



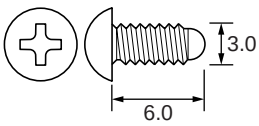
#31: M3.0 X 4.0
(Silver)
2-102-434-01



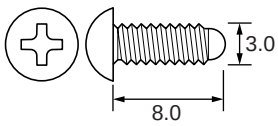
#32: M2.0 X 4.5 (Tapping)
(Silver)
2-102-498-01



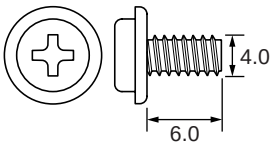
#33: M3.0 X 6.0
(Silver)
3-077-331-21



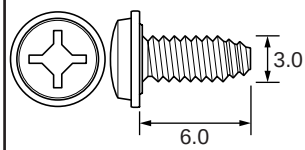
#34: M3.0 X 8.0
(Black)
3-077-331-41



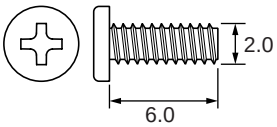
#35: M4.0 X 6.0 (Tapping)
(Silver)
3-975-291-02



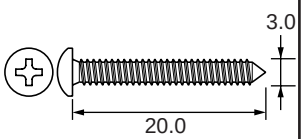
#36: M3.0 X 6.0
(Silver)
4-886-821-11



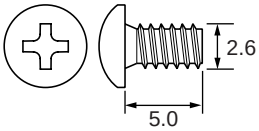
#37: M2.0 X 6.0 (Tapping)
(Black)
3-080-206-31



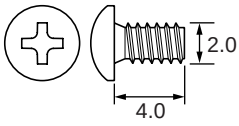
#38: M3.0 X 20.0 (Tapping)
(Silver)
7-685-651-79



#39: M2.6 X 5.0 (Tapping)
(Black)
7-685-791-09

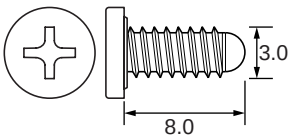


#40: M2.0 X 4.0 (Tapping)
(Silver)
7-685-851-04

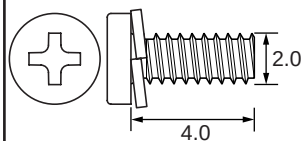


HARDWARE LIST (3/4)

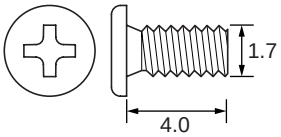
#41: M3.0 X 8.0 (Tapping)
(Silver)
3-065-748-01



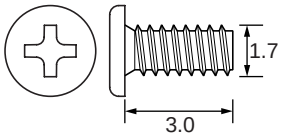
#42: M2.0 X 4.0 (Tapping)
(Silver)
7-628-253-00



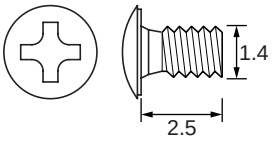
#43: M1.7 X 4.0
(Red)
2-660-401-31



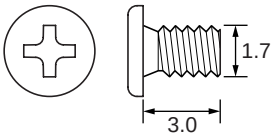
#44: M1.7 X 3.0 (Tapping)
(Silver)
3-078-890-61



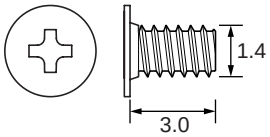
#45: M1.4 X 2.5
(Silver)
2-587-151-01



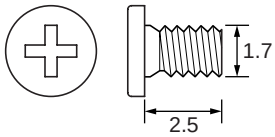
#46: M1.7 X 3.0
(Red)
2-660-401-11



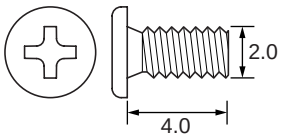
#47: M1.4 X 3.0 (Tapping)
(Silver)
2-665-774-01



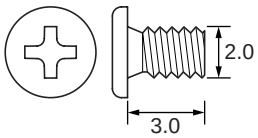
#48: M1.7 X 2.5
(Silver)
3-973-497-91



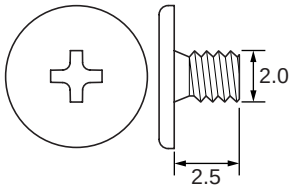
#49: M2.0 X 4.0
(Black)
2-630-005-31



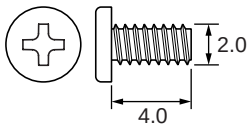
#50: M2.0 X 3.0
(Red)
2-891-494-11



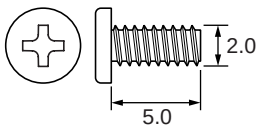
#51: M2.0 X 2.5
(Silver)
3-073-686-01



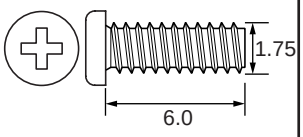
#52: M2.0 X 4.0 (Tapping)
(Black)
3-080-206-11



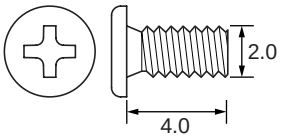
#53: M2.0 X 5.0 (Tapping)
(Black)
3-080-206-21



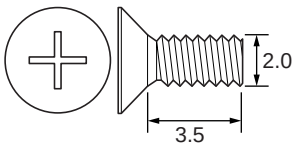
#54: M1.75 X 6.0 (Tapping)
(Black)
3-318-203-11



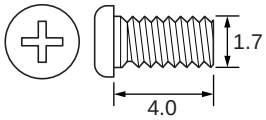
#55: M2.0 X 4.0
(Silver)
2-655-582-11



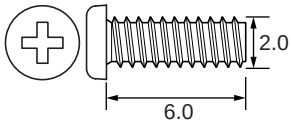
#56: M2.0 X 3.5
(Silver)
3-067-187-11



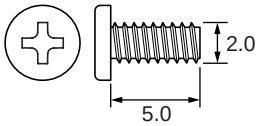
#57: M1.7 X 4.0
(Black)
7-627-852-18



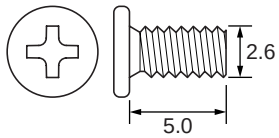
#58: M2.0 X 6.0 (Tapping)
(Silver)
3-719-408-11



#59: M2.0 X 5.0 (Tapping)
(Silver)
3-080-205-21

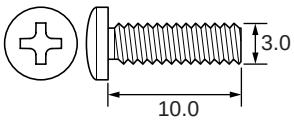


#60: M2.6 X 5.0
(Black)
3-061-062-11

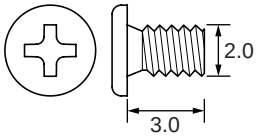


HARDWARE LIST (4/4)

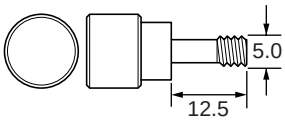
#61: M3.0 X 10.0
(Black)
7-682-549-09



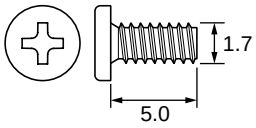
#62: M2.0 X 3.0
(Silver)
3-080-202-21



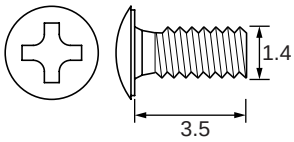
#63: M5.0 X 12.5
(Black)
3-060-811-21



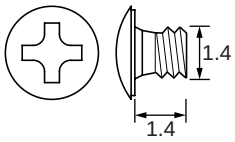
#64: M1.7 X 5.0 (Tapping)
(Silver)
2-666-551-21



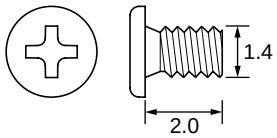
#65: M1.4 X 3.5
(Silver)
2-635-591-01



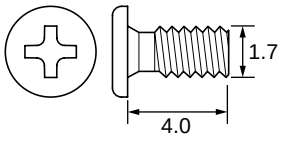
#66: M1.4 X 1.4
(Silver)
2-635-591-41



#67: M1.4 X 2.0
(Silver)
3-389-523-16

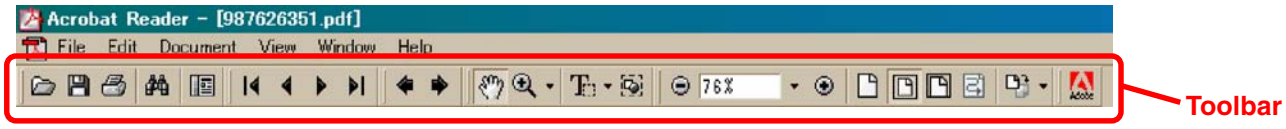


#68: M1.7 X 4.0
(Silver)
2-655-581-01



ENGLISH | JAPANESE

[Description of main button functions on toolbar of the Adobe Acrobat Reader Ver5.0 (for Windows)]



Printing a text

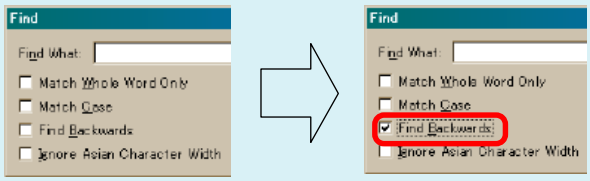
1. Click the Print button .
2. Specify a printer, print range, number of copies, and other options, and then click [OK].

Application of printing:
To set a range to be printed within a page, select the graphic selection tool and drag on the page to enclose a range to be printed, and then click the Print button.

Finding a text

1. Click the Find button .
2. Enter a character string to be found into a text box, and click the [Find]. (Specify the find options as necessary)

Application to the Service Manual:
To execute "find" from current page toward the previous pages, select the check box "Find Backward" and then click the "Find".



3. Open the find dialog box again, and click the [Find Again] and you can find the matched character strings displayed next. (Character strings entered previously are displayed as they are in the text box.)

Application to the Service Manual:
The parts on the drawing pages (block diagrams, circuit diagrams, printed circuit boards) and parts list pages in a text can be found using this find function. For example, find a Ref. No. of IC on the block diagram, and click the [Find Again] continuously, so that you can move to the Ref. No. of IC on the circuit diagram or printed circuit board diagram successively.
Note: The find function may not be applied to the Service Manual depending on the date of issue.

Switching a page

- To move to the first page, click the .
- To move to the last page, click the .
- To move to the previous page, click the .
- To move to the next page, click the .

Reversing the screens displayed once

- To reverse the previous screens (operation) one by one, click the .
- To advance the reversed screens (operation) one by one, click the .

Application to the Service Manual:
This function allows you to go and back between circuit diagram and printed circuit board diagram, and accordingly it will be convenient for the voltage check.

Moving with link

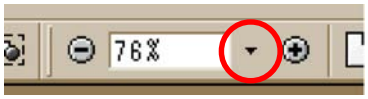
1. Select either palm tool , zoom tool , text selection tool , or graphic selection tool .
2. Place the pointer in the position in a text where the link exists (such as a button on cover and the table of contents page, or blue characters on the removal flowchart page or drawing page), and the pointer will change to the forefinger form .
3. Then, click the link. (You will go to the link destination.)

Moving with bookmark:
Click an item (text) on the bookmark pallet, and you can move to the link destination. Also, clicking can display the hidden items.
(To go back to original state, click)

Zooming or rotating the screen display

"Zoom in/out"

- Click the triangle button in the zoom control box to select the display magnification. Or, you may click or for zooming in or out.



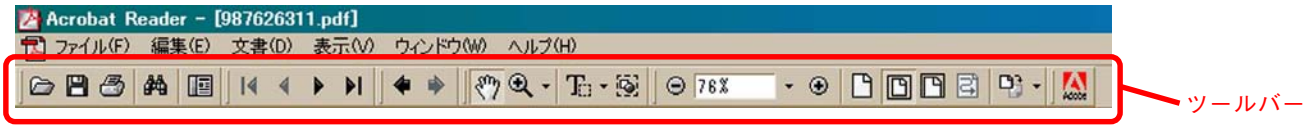
"Rotate"

- Click rotate tool , and the page then rotates 90 degrees each.

Application to the Service Manual:
The printed circuit board diagram you see now can be changed to the same direction as the set.

ENGLISH JAPANESE

【Adobe Acrobat Reader Ver 5.0(for Windows)ツールバー内にある主なボタンの機能説明】



文章を印刷する

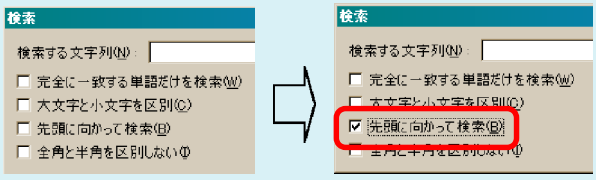
1. 印刷ボタンをクリックする。
2. プリンター、印刷範囲、印刷部数、および他のオプションを指定して「OK」をクリックする。

印刷の応用：
ページ内で印刷したい範囲を設定するには、グラフィック選択ツールを選択し、ページ上をドラッグして印刷したい範囲を囲んでから印刷ボタンをクリックする。

文章内を検索する

1. 検索ボタンをクリックする。
2. 検索したい文字列をテキストボックスに入力して「検索」をクリックする。(必要に応じて検索オプションを指定する)

サービスマニュアルへの応用：
現在のページから前ページに向かって検索する場合は「先頭に向かって検索」のチェックボックスを選択してから「検索」をクリックする。



3. 検索ダイアログボックスをもう一度開き、「次を検索」をクリックすると次に出てくる一致文字列を検索することができる。(前回入力した文字列が、テキストボックスにそのまま表示されている)

サービスマニュアルへの応用：
文章内にある図面ページ(ブロックダイヤグラム、回路図、プリント図)および部品表ページなどは、この検索機能を使って部品検索することができる。例えば、ブロックダイヤグラム上でICのRef. No.を検索し、「次を検索」を続けることによって回路図、プリント図上にあるICのRef. No.へ次々と移動する。
注意：発行年月日によって検索できない場合もあります。

ページを切り換える

- 最初のページに移動する場合、をクリックする。
- 最後のページに移動する場合、をクリックする。
- 前のページに移動する場合、をクリックする。
- 次のページに移動する場合、をクリックする。

一度表示した画面へ逆戻りする

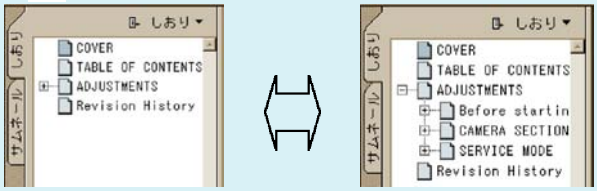
- 前の画面(操作)へ1つずつ逆戻りする場合、をクリックする。
- 戻した画面(操作)を1つずつ前に進める場合、をクリックする。

サービスマニュアルへの応用：
回路図とプリント図を行き来できるので電圧チェックに便利です。

リンクを使用して移動する

1. 手のひらツール、ズームツール、テキスト選択ツール、グラフィック選択ツールのいずれかを選択する。
2. 文章内のリンクのある場所(表紙および章目次ページのボタン、外し方のフローページ、図面ページでは文字が青色になっているところなど)にポインタを置くと、ポインタが人差し指の形「」に変わる。
3. そのままリンクをクリックする。(リンク先へ移動する)

しおりを利用して移動する：
しおりパレット上の項目(テキスト)をクリックするとリンク先へ移動することができる。また、「」をクリックすると隠れている項目を表示することができる。
(「」をクリックすると元に戻る)



画面の表示を拡大、縮小または回転させる

「拡大/縮小」

- 倍率ボックスの三角矢印ボタンをクリックし、表示倍率を選択する。または、をクリックしても使えます。

「回転」

- 回転ツールをクリックすると、ページが90度ずつ回転する。

サービスマニュアルへの応用：
見ているプリント図をセットと同じ向きに変えられます。

Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2007.01	Official Release	—	—
1.1	2007.04	Revised-1	Correction of errors	Yes